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**ORGANIZATION
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IN THE
INDIAN ARMY**

By the same Author :

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**ORGANIZATION
AND ADMINISTRATION
IN THE
INDIAN ARMY**

By
BRIGADIER RAJENDRA SINGH, *p.s.c.*
GRENADIERS

**ALDERSHOT
GALE & POLDEN LTD.
1952**



First published 1952

**Printed in Great Britain by Gale & Polden Ltd.
at their Wellington Press, Aldershot, Hampshire**

TO
J. H. W.

PUBLISHER'S NOTE

THIS book has been written by Brigadier Rajendra Singh for the use of the Officers of the Indian Army, based on the pattern of the ever-popular book, "Lindsell's Military Organization and Administration," for the British Army.

This book contains all material regarding Organization and Administration included in the syllabus for the following examinations, which Officers of the Regular Army now have to pass :

Retention Examination,
Promotion Examinations, and
Staff College Entrance Examination.

The contents of this book cover a very wide field, but cannot be made comprehensive enough to contain all data and detail about Organization and Administration. Therefore, the book must be studied in conjunction with other reference books on the subject. It does not claim to supersede any official doctrine laid down from time to time in official publications.

To facilitate study, the book has been divided into eight parts, with chapters on each subject consecutively numbered. The paragraphs in each chapter are also numbered consecutively throughout to facilitate reference. The matter has been arranged in the form prescribed for military writing.

PREFACE

IN 1948, while with the Historical Section, I was asked by the editor of the *United Services Institute Journal* to write a review of the 27th edition of "Lindsell's Organization and Administration," by Brigadier Benoy. While studying this encyclopædia of information about Organization and Administration of the British Army, I felt the need of a similar book for young officers of the army of free India.

It has taken me two years to collect, collate and prepare the mass of material available on the subject and offered to me by a host of friends, whom I cannot thank individually but to whom I must remain for ever indebted.

During the last two years our organization has undergone considerable transformation; therefore the correction of the manuscript has been a tiresome but necessary task. I am extremely grateful to the large body of friends who helped in bringing the details up to date.

JAI HIND,

FIELD,
15th June, 1952.

RAJENDRA SINGH,
Brigadier.

THE AUTHOR

BRIGADIER RAJENDRA SINGH, popularly known in the Army as "Dhobi," has had a chequered military and journalistic career. For the last twenty years he has written in English, Urdu, Hindi and Punjabi under different pen-names. His first full-size novel, "Murti," in Hindi, was published in 1937 and was highly acclaimed by all critics. Since then he has produced one full-size book every year.

He graduated from the Indian Military Academy, Dehra Dun, in 1936, and, after a year with the 1st Battalion The Queen's Royal Regiment, was posted to 1st Battalion 14th Punjab Regiment, with whom he served on the North-West Frontier. On the declaration of war he was first appointed Adjutant of 11th Battalion 14th Punjab Regiment, and later of 9th Battalion 9th Jat Regiment.

In 1942 he attended the Senior Staff College Course at Quetta and, after graduation, was appointed Staff Captain at Army Headquarters, New Delhi. Since then he has filled staff appointments of General Staff Officer Instructor, 2nd grade, at the Officers' Training School, Belgaum; Assistant Adjutant-General, Army Headquarters, New Delhi; Assistant Quartermaster-General at British Commonwealth Occupation Forces, Japan; and Assistant Adjutant and Quartermaster-General of the Indian Contingent. As General Staff Officer, 1st grade, at the Historical Section, Simla, he edited various campaigns in which Indian troops participated during World War II and also wrote the official histories of the Indian Contingent in Japan and Military Evacuation Organization during the partition of the Punjab.

He was Second-in-Command of 4th Battalion 14th Punjab Regiment in Burma and, after Independence, commanded the 1st Battalion Indian Grenadiers, during the Kashmir operations and led the forces which liberated Gurez in 1948.

As Colonel in charge Administration, V Corps, and later 21 Line of Communication Area, he was responsible for the administration and maintenance of the Indian Forces in the whole of Jammu and Kashmir theatres.

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PART I

ORGANIZATION

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ORGANIZATION AND ADMINISTRATION IN THE INDIAN ARMY

CHAPTER I

PRINCIPLES OF ORGANIZATION

Section 1. PRINCIPLES

1. **General.**—To accomplish any function there must be an organization. The simpler the function, the smaller need be the organization, and as functions become complex and diverse, the more complicated becomes the organization.

An organization may be for running a house, a government department or a civilian factory. It should be so organized as to accomplish its task with economy and speed. One of the most efficient organizations is the human body, the way the various parts of our anatomy function to fulfil their tasks. The organization must be so planned that the commands of the mind are communicated quickly through nerves and accomplished automatically by the various parts of the body. Similarly, all sensual organs must transmit their reactions quickly to the brain, where they must be registered quickly and necessary orders issued immediately.

2. Every organization must have:

- (a) **A Function.**—The function must be clearly outlined and understood by all. If it is a composite body, the functions of the component parts must be explained in relationship to the whole.

- (b) **A Form.**—To fulfil the general functions laid down, the organization must have a basic form like the skeleton of the human body.
- (c) **An Establishment.**—The form must naturally have the necessary component parts. Details of parts required must be based on the functions of the unit.
- (d) **A Policy Organ.**—The establishment must have a policy organ as a part or an outside agency to outline higher policy and communicate decisions to functional organs.
- (e) **Communication Channels.**—The directions of the superior controlling authority must be quickly communicated to various functional organs like the nerves of the body.
- (f) **Functional Organs.**—These can be classified into two divisions:
 - (i) Command organization—which puts the parts of the form into action to attain the aim outlined.
 - (ii) Administrative organization—which keeps the components of the form alive so that they can carry out the executive orders.

3. The organization of the Army must, therefore, have all the above attributes and they must be so organized that they function smoothly and efficiently.

4. **Functions of the Army.**—The following functions have been laid down:

- (a) Primarily, to defend India against external aggression.
- (b) Secondly, to assist the Government when asked to give such assistance, in order to enable it to carry out its functions peacefully.

5. It is incumbent on all ranks of the Army to work loyally, honestly and with the highest standard of discipline and, in co-operation with the other two Services of the Armed Forces—Navy and Air Force—and other agencies of the Government, to achieve the goal set out.

6. **Form.**—The Army is organized like a pyramid where the orders emanate from a single individual forming the apex on a wide base, interconnected by layers of intermediary formations with well-defined roles.

Each formation consists of units with well-defined functions. A number of these units are joined together to form a pyramid within the larger pyramid.

7. Establishment.—The establishment of every type of Army unit evolved by experience is laid down in Regulations.

In the case of a new unit, the proposed establishment is drawn up by the sponsoring body according to the functions outlined by the higher authorities. The case with all arguments is submitted to Army Headquarters and, after thorough scrutiny by various branches concerned, is passed to the Army Finance authorities. Before the establishment is sanctioned, it is put through a complete post-mortem by the Army Standing Establishment Committee (A.S.E.C.), where the sponsor has to convince the members of the necessity for the personnel, stores and equipment suggested.

It is the function of A.S.E.C. to ensure that the establishment approved by it gives the unit sufficient number of officers and personnel of the right ranks, with sufficient vehicles, stores and equipment to accomplish its tasks. The members of A.S.E.C. must, therefore, be thoroughly versed in operational and administrative requirements of units in peace and war.

Establishments are not sacrosanct and should be changed as often as the functions alter and should be scrapped when no longer required.

8. Policy Organ.—In the Army it is necessary that policy matters are decided quickly. The ideal would be for one single individual to be responsible for all decisions and actions, but this is not possible in matters of higher policy where many departments have to be consulted before broad decisions concerning them can be taken. The latter is done by committees or conferences according to the procedure laid down.

In the lower layers of organization, the commander becomes responsible for policy decisions within the limits of responsibility laid down for that rank. In arriving at his decision, he is assisted by his advisers and staff.

9. Communication Channels.—To facilitate control, it is necessary that there must be an efficient network of communications for passing orders downwards and information upwards. This heavy two-way traffic is handled by the Signal services.

As said before, the Army has a well-defined pyramidal form and the orders from the commander pass through successive layers to the remotest nerve centre along well-defined channels of communication like blood circulating through the arteries.

It is, therefore, necessary that all units must be aware of the commander on top, the various formations above and the correct

channels of communications. To inform everyone about the units in a formation, a list of units, called the Order of Battle, is issued to all concerned and kept amended according to changes in locations.

For good command and harmonious relationship it is essential that all formations adopt the correct channels of communication and do not short circuit intervening commands.

10. Command Organization.—In the superior Headquarters the policy and command functions are carried out by different agencies, but lower down in the chain of command these functions start getting dovetailed into one another till we come to the stage when both the functions are performed by one and the same person.

The military organization is based on the principle of personal command, where the individual commander is responsible for the policy within the limitations laid down for that position, conversion of the policy into executive action and to ensure that it is carried out in its entirety.

It has been generally experienced that a commander should not have too many persons to deal with. The number is variable and dependent on the scope of work and the availability of staff to cope with it. The golden number is four.

The orders of the commander are passed through his staff, which has various branches with specific functions as described in subsequent chapters.

11. Administrative Organization.—Every Headquarter has an administrative machine which “feeds the body, gets it on the move and keeps it in being.”

In superior Headquarters the problems of administration and maintenance are tackled by different individuals with a network of staff and services but, as we go down the ladder, these responsibilities get centralized till the policy, command and administration are done by one and the same person.

Section 2. STRUCTURE OF ARMY ORGANIZATION

12. The Policy-making Organ.—The policy governing the organization and control of the Armed Forces as a whole is formulated by the Cabinet, which consists of the Prime Minister and other Ministers, of whom one holds the portfolio of Defence. The Cabinet, in making its decisions, is assisted by the recommendations of the Defence Committee of the Cabinet, constituted as follows:

Chairman	..	The Prime Minister.
Members	..	The Deputy Prime Minister. The Minister for Defence. The Minister for Finance.
In attendance		The Chiefs of Staff—Army, Navy and Air Force. Secretary, Ministry of Defence. Financial Adviser, Defence.

This committee deals on behalf of the Cabinet with all important questions relating to defence put up by the Defence Minister's Committee.

13. Defence Minister's Committee.—The Defence Minister's Committee is constituted as follows:

Chairman	..	The Defence Minister.
Members	..	The Chiefs of Staff—Army, Navy and Air Force. The Secretary, Ministry of Defence. The Financial Adviser, Defence.

The Committee gives decision on all important matters which jointly concern any two or all three Services, and submits to the Defence Committee of the Cabinet such planning papers on which it cannot itself take action.

14. The Defence Minister.—The Minister of Defence is the head of the Defence Organization and responsible to Parliament for:

- (a) All matters relating to the Defence Forces.
- (b) Answering all questions in Parliament in relation to the Defence Services.
- (c) Appropriation of funds.
- (d) Allotment of funds to the various defence agencies according to the broad policy outlined by the Defence Minister's Committee.
- (e) Control and direction of research policy.
- (f) Correlation of all activities—civil and ministerial—to purposes of defence.
- (g) Administration of Ministry of Defence.

Section 3. MINISTRY OF DEFENCE

15. Functions.—The Ministry of Defence, like other Ministries of the Government of India, has a Standing Committee of Legis-

lature and is responsible for obtaining policy decisions of Government in regard to all defence matters and for transmitting decisions to the Service Headquarters.

To ensure that decisions are implemented by executive organs, the Defence Ministry functions in closest co-operation and continuous consultation with the Service Headquarters. For the larger portion of its work, the Ministry operates on a joint file system with these Headquarters.

16. Charter of Organization.—The main functions of the Ministry of Defence are:

- (a) Communication of decisions of the Defence Ministry to the Service Heads. This is done through the Gazette Notifications and Army Instructions issued under the signature of the Secretary of Defence.
- (b) Co-ordination with the Services. This is achieved by having the Secretary of Defence as the Secretary of the Defence Minister's Committee where the three Service Heads are also co-opted as members.
- (c) Administration and control of various departments under its jurisdiction.

17. Departments under Ministry of Defence.—The Ministry of defence has various Branches and Departments mainly dealing with matters which are of an inter-service nature, that is affecting the Army, Navy and Air Force.

The main departments are:

- (a) The Armed Forces Information Office, which deals with all publicity relating to Armed Forces.
- (b) The Historical Section, which is producing the military history of the operations in which Indian troops have participated.
- (c) The Directorate of Military Lands and Hirings, which is responsible for hiring and settling all matters relating to cantonments and compensation for property, etc.
- (d) The Pension Branch, which deals with all matters of pensions for all ranks of all the three Services.
- (e) The Directorate of Foreign Languages, responsible for training personnel in foreign languages.
- (f) National Academy Secretariat, which deals with all questions relating to the setting up of a National Defence Academy.

- (g) The Soldiers', Sailors' and Airmen's Boards, which deal with the welfare of ex-service men at their homes.
- (h) National Cadet Corps, which is responsible for raising and controlling all National Cadet Corps units.

Section 4. MILITARY FINANCE

18. Functions.—To assist the Ministry of Defence and the Service Heads in all financial matters, there is an organ of the Ministry of Finance headed by the Financial Adviser, who ranks as an Additional Secretary responsible to the Ministry of Finance.

The Financial Adviser, subject to the control of his Minister, has full authority to sanction any expenditure required for the Armed Forces. The Financial Adviser and his organization which permeates Service Headquarters at various levels, is available for advice on financial matters to the respective Service Heads.

The Financial Adviser is responsible for preparing the military budget estimates and the Appropriation Report for Parliament and, through the Military Accountant-General (M.A.G.), is responsible for making all payments to the Armed Forces and accounting for their payments.

19. The Military Accountant-General has under him:

- (a) The Field Controller of Military Accounts (F.C.M.A.), Poona, who is responsible for maintaining the pay accounts of officers and accounting for expenditure incurred under the war system of accounting.
- (b) The Field Controller of Military Accounts (Other Ranks), Ambala, who is responsible for all financial matters relating to the pay accounts of other ranks on the war system of accounting.
- (c) The Controllers of Military Accounts (Command), Meerut, Poona and Patna, who are responsible for accounting and audit of all normal expenditure within the respective commands and are financial advisers to Army Commanders.
- (d) The Controller of Military Accounts (Pensions), Allahabad, who deals with all cases relating to pensions of all Army personnel and the payment of gratuities to all personnel discharged on medical grounds.
- (e) The Controller of Army Factory Accounts, Calcutta, who deals with the accounting and audit of expenditure incurred by Army Factories and personnel serving therein.

20. All Army expenditure is auditable. This is done by the Test Audit Staff operated by the Director of Audit directly under the Auditor-General, who is the final authority on all audit matters.

The Director of Audit has his own staff at all Command levels and it is the responsibility of all officers to clear audit objections as early as possible.

21. Army expenditure is classified and controlled under specific budget heads. Each item of expenditure must be duly authorized by a Ministry of Defence letter, Army Instruction or appropriate Regulation.

No expenditure may be incurred without the approval of the Government and outside the financial powers authorized. All demands must be put up with details through the prescribed Army channels and with the concurrence of the Controller of Military Accounts concerned. If there is any doubt about the legitimacy of expenditure, the opinion of the Local Audit Officer (L.A.O.) should be obtained prior to incurring expenditure, and in case of dispute the matter be referred to higher authorities for decision.

Section 5. CHIEFS OF STAFF COMMITTEE

22. **Functions.**—The decisions of the Defence Committee of the Cabinet and the Defence Minister's Committee are communicated to the Chiefs of Staff Committee or to the respective Chief of Staff as the case may be, by the Secretary of Defence, for executive action.

23. The Chiefs of Staff Committee prepares strategic appreciations and military plans for defence and submits them to the Defence Ministers' Committee. All problems of an inter-service nature or of vital importance concerning the Armed Forces as a whole are placed before the Chiefs of Staff Committee.

24. The Chief of Staff, by virtue of his dual role as the Commander-in-Chief of the Army and the adviser, is responsible for putting the decisions of the various policy organs into action through the agencies under his command. His orders are executed through Army Headquarters at New Delhi.

CHAPTER II

ORGANIZATION OF ARMY HEADQUARTERS

Section 1. ARMY HEADQUARTERS

1. **Commander-in-Chief.**—The Commander-in-Chief is responsible for the command, control and administration of the Army as a whole. He presides over the Principal Staff Officers Committee, which consists of the following:

(a) **Members:**

- (i) Chief of the General Staff.
- (ii) Adjutant-General.
- (iii) Quartermaster-General.
- (iv) Master-General of Ordnance.

(b) **In attendance:**

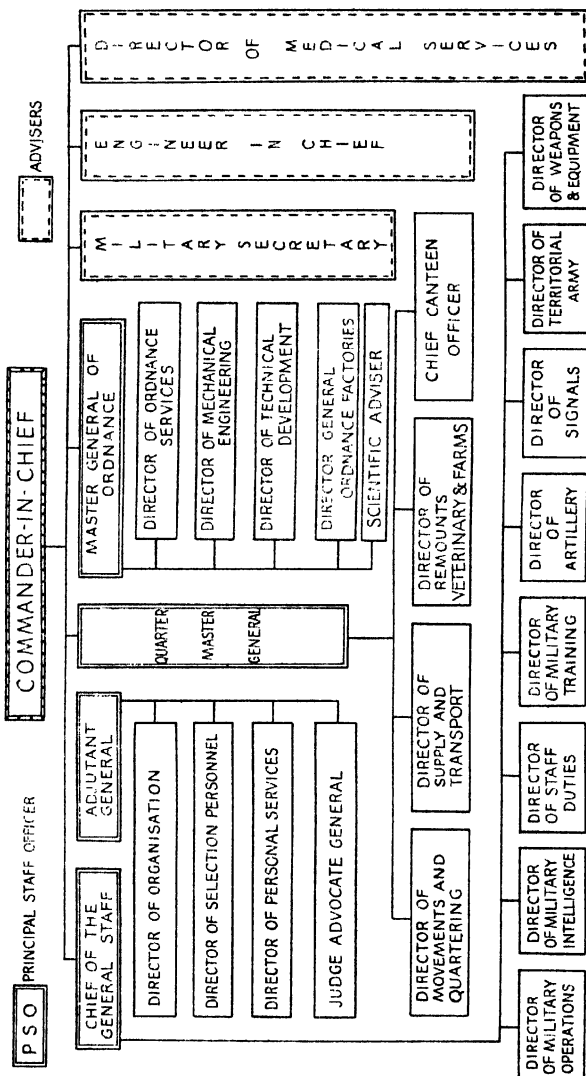
- (i) Military Secretary.
- (ii) Engineer-in-Chief.
- (iii) Director of Medical Services.

2. **Chief of the General Staff.**—Chief of the General Staff is the head of the General Staff Branch and has the following Directors under him:

(a) **Director of Military Operations**, who is responsible for

- (i) military operations;
- (ii) internal security;
- (iii) defence policy on all counts;
- (iv) external defence of India; and
- (v) maps.

Organization of an Army Headquarters



- (b) Director of Military Intelligence**, who is responsible for
 - (i) intelligence policy and organization;
 - (ii) control of intelligence; and
 - (iii) security.
- (c) Director of Staff Duties**, who is responsible for
 - (i) organization and co-ordination;
 - (ii) establishments and army standing committee; and
 - (iii) control of units/formations.
- (d) Director of Military Training**, who is responsible for
 - (i) military training;
 - (ii) Army Headquarters training establishments;
 - (iii) all matters of policy regarding Armoured Corps and Infantry; and
 - (iv) publications, pamphlets and films.
- (e) Director of Artillery**, who is responsible for
 - (i) policy, organization and training of artillery units;
 - (ii) inspection, both tactical and technical, of artillery units;
 - (iii) artillery equipment and ammunition; and
 - (iv) administration of artillery units.
- (f) Director of Signals**, who is responsible for
 - (i) policy and training of signal units;
 - (ii) organization of communications;
 - (iii) allotment of signal equipment;
 - (iv) services communication board;
 - (v) ciphers; and
 - (vi) administration of signal units.
- (g) Director of Territorial Army**, who is responsible for
 - (i) policy and organization of Territorial Army;
 - (ii) control of Territorial Army units; and
 - (iii) administration of Territorial Army units.
- (h) Director of Weapons and Equipment**, who is responsible for
 - (i) weapons and equipment policy;
 - (ii) planning and release of control stores;
 - (iii) research and development of weapons and equipment; and
 - (iv) equipment tables revision committee.

3. Adjutant-General.—Adjutant-General is the head of “A” Branch and has the following Directors under him:

- (a) **Director of Organization**, who is responsible for
 - (i) armoured corps and infantry battalions;
 - (ii) manpower policy and planning;
 - (iii) British, Gurkha and civilian personnel;
 - (iv) reinforcements; and
 - (v) recruitment.
- (b) **Director of Selection Personnel**, who is responsible for
 - (i) policy of selection of officers;
 - (ii) organization of selection boards;
 - (iii) officers selection board;
 - (iv) administration of selection boards; and
 - (v) technical research and procedure.
- (c) **Director of Personal Services**, who is responsible for
 - (i) discipline;
 - (ii) terms of service, leave and release policy;
 - (iii) pay and allowances;
 - (iv) pensions and gratuities;
 - (v) honours and awards;
 - (vi) welfare and morale;
 - (vii) ceremonial and dress regulations; and
 - (viii) military police.
- (d) **Judge Advocate-General**, who is responsible for
 - (i) legal advice;
 - (ii) military trials;
 - (iii) courts-martial, international law and martial law;
 - (iv) review of courts-martial; and
 - (v) appeals, statutes and acts.

4. Quartermaster-General.—Quartermaster-General is the head of “Q” Branch and has the following Directors under him:

- (a) **Director of Movements and Quartering**, who is responsible for
 - (i) scales of accommodation;
 - (ii) provision of accommodation;
 - (iii) movements by land, sea and air;
 - (iv) control of movement organization;
 - (v) movement of stores; and
 - (vi) settlement of claims.

- (b) **Director of Supply and Transport**, who is responsible for
 - (i) all questions regarding supply and transport;
 - (ii) control of Army Service Corps units;
 - (iii) administration of Army Service Corps installations;
 - (iv) provision and stocking of Army Service Corps supplies; and
 - (v) supply policy, contracts and inspections.
- (c) **Director of Remounts, Veterinary and Farms**, who is responsible for
 - (i) remounts and remount department;
 - (ii) policy and veterinary cover;
 - (iii) control and administration of veterinary units;
 - (iv) grass and dairy farms, control of military farms department; and
 - (v) livestock policy and procurement.
- (d) **Chief Canteen Officer**, who is responsible for
 - (i) canteen contractors;
 - (ii) control and allotment of canteen stores;
 - (iii) check of contracts; and
 - (iv) inspection of canteens.

5. **Master-General of Ordnance**.—Master-General of Ordnance is the head of the Master-General of Ordnance Branch and has the following Directors under him:

- (a) **Director of Ordnance Services**, who is responsible for
 - (i) policy and planning of ordnance supplies;
 - (ii) provision, storage and disposal of ammunition and explosives, vehicles and military transport spares, and equipment and clothing;
 - (iii) control of ordnance units; and
 - (iv) administration of ordnance installations.
- (b) **Director of Mechanical Engineering**, who is responsible for
 - (i) Corps of Electrical and Mechanical Engineers and its administration;
 - (ii) policy and planning;
 - (iii) maintenance of technical stores; and
 - (iv) training of technical personnel.

(c) **Director of Technical Development**, who is responsible for

- (i) armament development;
- (ii) vehicle development; and
- (iii) stores development.

(d) **Scientific Adviser**, who is responsible for

- (i) research;
- (ii) control of laboratories and scientific institutions; and
- (iii) technical advice to factories.

6. Military Secretary.

(a) Military Secretary is responsible for executive duties connected with the appointment, promotion, retirement, re-designation and release of officers of the Army excepting officers of the Medical Corps. He is also responsible for selection of officers for all graded staff appointments and for all commands of Lieutenant-Colonel and above. Appointments to regimental commands and in Corps and Departments above the rank of Lieutenant-Colonel, other than the Medical Corps, are controlled by Military Secretary.

(b) Honours and Awards.

(c) Confidential Reports.

(d) Secretary to No. 1 Selection Board.

7. Engineer-in-Chief.—Engineer-in-Chief is the Commander of the Corps of Engineers which, being a “Q” Service, comes under the Quartermaster-General. He has the following Directors for staff functions:

(a) **Director of Engineer Staff Duties**, who is responsible for

- (i) organization of the Corps of Engineers;
- (ii) training; and
- (iii) equipment and research.

(b) **Director of Transportation**, who is responsible for

- (i) movement of Engineer stores;
- (ii) control of stores—
 - railways,
 - bridging,
 - airfields,
 - roads;
- (iii) control of transportation units.

(c) **Director of Engineer Stores and Plant**, who is responsible for

- (i) policy and procedure;
- (ii) provision, storage and disposal of engineer stores; and
- (iii) priority of issue.

(d) **Director of Works**, who is responsible for

- (i) policy and procedure for army works;
- (ii) siting and planning of works;
- (iii) electric, refrigeration and oil installations; and
- (iv) surveys, estimates and specifications.

8. **Director of Medical Services.**—Director of Medical Services is the commander of the Army Medical Corps, which, being an “A” service, comes under the Adjutant-General. He is responsible for

- (i) administration of army medical services;
- (ii) medical equipment and stores;
- (iii) organization and control of medical units; and
- (iv) technical recommendations regarding health and sanitation.

Section 2. BRANCHES, DIRECTORATES AND SECTIONS

9. “G” Branch.

The Chief of the General Staff is the head of the “G” Branch, and the various Directorates under him perform the operational, intelligence and co-ordination work. All the officers are designated as General Staff Officers and graded as:

Director	Brigadier/Colonel.
General Staff Officer, Grade I (G.S.O.1)	Lieutenant-Colonel.
General Staff Officer, Grade II (G.S.O.2)	Major.
General Staff Officer, Grade III (G.S.O.3)	Captain.

10. **Adjutant-General’s Branch.**—The Adjutant-General is the head of the “A” Branch and through various Directors is responsible for the discipline, morale and welfare of the Army. The staff officers are designated as:

Director	Brigadier/Colonel.
Assistant Adjutant - General (A.A.G.)	Lieutenant-Colonel.
Deputy Assistant Adjutant - General (D.A.A.G.)	Major.
Staff Captain ("A")—S.C.("A")	Captain.

11. Quartermaster-General's Branch.—The Quartermaster-General is the head of the "Q" Branch and is responsible for accommodation, supply, transport and movement of forces. The Staff Officers are designated as follows:

Director	Brigadier/Colonel.
Assistant Quartermaster-General (A.Q.M.G.)	Lieutenant-Colonel.
Deputy Assistant Quarter- master-General (D.A.Q.M.G.)	Major.
Staff Captain ("Q")—S.C.("Q")	Captain.

12. Master-General of Ordnance Branch.—The Master-General of Ordnance is the head of the "M.G.O." Branch and is responsible for procurement, storage and supply of arms and equipment. The Staff Officers are designated as follows:

Director	Brigadier/Colonel.
Assistant Master - General of Ordnance (A.M.G.O.) ..	Lieutenant-Colonel.
Deputy Assistant Master- General of Ordnance (D.A.M.G.O.)	Major.
Staff Captain (M.G.O.)—S.C. ("M.G.O.")	Captain.

13. Military Secretary's Branch.—The Military Secretary has a Deputy Military Secretary with the rank of Colonel, and instead of a Directorate has only sections with Staff Officers of following designations:

Assistant Military Secretary (A.M.S.)	Lieutenant-Colonel.
Deputy Assistant Military Sec- retary (D.A.M.S.)	Major.
Staff Captain (M.S.)—S.C. (M.S.)	Captain.

14. Engineer-in-Chief's Branch.—The Engineer - in - Chief, through the Quartermaster-General, is responsible for engineering construction and policy and has the following Staff Officers:

Director	Brigadier/Colonel.
Staff Officer, Grade I (S.O.1) ..	Lieutenant-Colonel.
Staff Officer, Grade II (S.O.2) ..	Major.
Staff Officer, Grade III (S.O.3)	Captain.

15. Directorate of Medical Services.—The Director of Medical Services, holding the rank of Major-General, is responsible for all medical matters and comes under the Adjutant-General. The staff functions are carried out by officers with the following designations:

Director	Brigadier/Colonel.
Assistant Director of Medical Services (A.D.M.S.)	Lieutenant-Colonel.
Deputy Assistant Director of Medical Services (D.A.D.M.S.)	Major.
Staff Captain (Medical)—S.C.(M.)	Captain.

16. Directorates.—Each Branch has one or more Directorates headed by a Brigadier/Colonel, who deals with the particular aspect of branch problems. A Director may be assisted by one or more Deputy Directors.

17. Sections.—Each Directorate is divided into one or many sections, depending on the amount of work. The section is generally under a grade I officer who has grade II and III officers to deal with different aspects of the problem.

Section 3. ARMY ORDERS

18. Regulations for the Army in India.—These rules and regulations are issued in amplification of the Manual of Military Law and serve as Standing Orders for the Army.

19. Army Orders.—Army Orders are issued fortnightly under the orders of the Commander-in-Chief. The Adjutant-General is responsible for their publication and distribution and draft orders are sent to that Branch well in advance.

Army Orders have sections for each Branch of the Service.

All Army Orders must be studied minutely and applied immediately. They should be kept in the Compendium of Army Orders.

Relevant passages of Army Orders are published in formation/unit orders.

CHAPTER III

THE COMPOSITION OF THE ARMY

Section 1. COMPOSITION

1. Components of the Army.—The Army consists of the following types of forces:

- (a) Regular Army.
- (b) Regular Army Reserve.
- (c) Territorial Army.
- (d) Border Scouts.
- (e) National Cadet Corps.

Section 2. REGULAR ARMY

2. Composition.—The main function of the Regular forces is always to be prepared for action for the defence of the country, and their organization has the following basic parts:

- (a) Headquarters.
- (b) Arms.
- (c) Services.

3. Headquarters.—The two main functions of the Headquarters are to command and control so that the armed forces can perform the functions for which they are meant—that is defence against outside aggression and internal security. For war the forces are organized in field formations, while for internal security the country is territorially divided and forces located there carry out training and can be organized into field formations as and when required.

4. **Arms.**—The purpose of the various arms is to fight in battle and they are of the following types:

- (a) Armoured Corps.
- (b) Corps of Artillery.
- (c) Corps of Engineers.
- (d) Corps of Signals.
- (e) Infantry.

The functions of the Corps of Engineers and Signals are given in Chapters IX and X respectively, as for success in battle all other arms and services have to depend on them for construction, accommodation, communication and control.

Infantry being the main mass of our fighting forces, its organization and functions are explained in detail in later chapters. The principles, being common, can be applied to other arms of the Service with slight modification of nomenclature and adjustment of details.

5. **Services.**—The main function of the services being the administration and maintenance of the forces, their organization and functions in detail are explained in later chapters. The Services are as follows:

- (a) Corps of Military Police.
- (b) Army Service Corps.
- (c) Army Medical Corps.
- (d) Army Remounts, Veterinary and Farms Corps.
- (e) Army Ordnance Corps.
- (f) Corps of Electrical and Mechanical Engineers.
- (g) Army Postal Service.
- (h) Army Pioneer Corps (Labour).
- (i) Army Canteen Service.

6. **Field Formations.**—The purpose of all field formations is to wage war. Therefore only a number of field units as considered necessary for the fulfilment of Government policy are kept fully equipped and in readiness, while the rest are kept in suspended animation to be resuscitated as and when required.

The basic formation for war is the Division. Its composition and organization are dealt with in Chapter VII.

7. **Territorial Commands.**—India is territorially divided into three Commands, Southern, Eastern and Western, each under a General Officer Commanding-in-Chief, who holds the rank of Lieutenant-General.

The Commands are further subdivided into Areas and Sub-Areas with responsibilities as explained in Chapter VI.

8. Functions.—The main function of the Regular Army is to be ready immediately to defend the country against external aggression and in case of need to assist the Government to maintain law and order.

It is a well-balanced force which is easily expandable in case of emergency and has units from all arms and services. It is so organized and trained that it can work as a composite whole when required to wage war.

9. Composition.—All units of the Regular Army have the following types of personnel engaged on a permanent basis:

- (a) **Officers.**—The quality of the Army depends on the efficiency, training and calibre of the officers. The best of Indian youth is selected, trained and fitted for these onerous duties. Their responsibilities are given in detail in Chapter XXXV.
- (b) **Junior Commissioned Officers.**—Formerly known as V.C.Os., are included in the term of officers and have responsibilities and functions as explained in Chapter XXXVI.
- (c) **Non-Commissioned Officers.**—Are not officers in the exact sense of the term and their responsibilities are explained in Chapter XXXVI.
- (d) **Other Ranks.**—The mass of the Regular Army is made up by "other ranks," who are employed for various terms of Regular and Reserve service according to the terms of service under which enlisted. For infantry the men are enlisted for eight years with the Colours and seven years with the Reserve. The eight years' Regular engagement can be extended by two years at a time, within the authorized strength of the Regular Army, to a total period of fifteen years, when a soldier becomes entitled to full pension and is retired, if not already promoted a non-commissioned officer. The details of service, promotion and pay are given in Chapter XXXVI.

Section 3. REGULAR ARMY RESERVE

10. General.—The purpose of the Regular Reserve is to form a reserve of trained personnel who otherwise cannot be retained

with the Colours, due either to restriction on the total numbers to be employed or for other reasons.

The Army Reserve consists of:

- (a) Army Reserve Officers.
- (b) Reservists.

11. Army Reserve Officer.—A Regular officer on retirement either on retired pay or gratuity becomes an officer of the Reserve force liable to be recalled to Army service in time of emergency until he reaches the age of retirement from the Reserve.

Gentlemen with military background, with Territorial or National Cadet Corps experience, are also granted commissions in the Reserve.

12. Reservists.—In the infantry, other ranks after eight years' service with the Colours are sent to the reserve, either due to lack of vacancies in Regular Army or at their own request. They do seven years with the Reserve, during which period they are called up for training for one month every alternate year.

During training or on recall, the reservists get pay of rank as for Regular Army. They get free rail warrants when recalled for training or on mobilization.

The reservists are generally trained at the Regimental Centres or Depots of the unit, while their recall notices are maintained and kept by the parent unit to which they belonged before transfer to Reserve.

Section 4. TERRITORIAL ARMY

13. The Territorial Army was constituted by the Territorial Act of 1948, which authorizes the Central Government to constitute as many units of the Territorial Army as it thinks fit for the defence of the country.

The role of the Territorial Army is to:

- (a) Provide additional units and formations to reinforce the Regular Army immediately an emergency arises.
- (b) Relieve partly or wholly the Regular Army of its internal defence commitments.
- (c) Be responsible for anti-aircraft and coastal defence of the country.
- (d) Give the youth of India an opportunity of receiving part-time military training.

14. The Territorial Army personnel have **NO** liability for service overseas unless a special order is issued by the Central Government. Territorial Army personnel are liable to perform military service:

- (a) When called out in the manner prescribed to act in support of civil power or to provide essential guards.
- (b) When embodied in the manner prescribed for training or for supporting or supplementing the Regular Army.
- (c) When attached to Regular Army units either at their own request or under the conditions prescribed.

15. The personnel of the Territorial Army consists of the following categories:

- (a) **Officers.**—Indian Commissioned Officers granted Territorial Army Commissions by the President. The designations and ranks correspond to officers of the Regular Army.
- (b) **Junior Commissioned Officers.**—Granted junior grade commissions in the Territorial Army with designation of rank corresponding to that of the Regular Army.
- (c) **Enrolled Persons.**—Any person domiciled in India can be enrolled in the Territorial Army provided he fulfils the conditions prescribed.

16. **Organization.**—The Territorial Army units are organized on a zonal basis and consist of provincial and urban units for different arms of service. There are Territorial units also for the Navy and Air Force.

In provincial units the personnel are recruited mainly from rural areas and are trained annually in camp.

The personnel of urban units are recruited mainly from towns and do training throughout the year on the weekly drill system and at annual camps.

17. **Establishment.**—The Territorial Army units are organized on the same Peace Establishments as laid down for similar units of the Regular Army.

For purposes of control and training, each unit is authorized some permanent staff which is seconded from the Regular Army and is responsible for training and administration.

18. **Recruitment and Enrolment.**—For Territorial Army recruitment, India is divided into eight zones. Other ranks can be

recruited by unit commanders or through the recruiting organization.

The object of universal recruitment in the Territorial Army is to imbue with the martial spirit those classes not previously recruited to the Army and to give the youth of India as a whole the opportunity to prepare themselves for immediately and capably bearing arms for the protection of their country in an emergency. Therefore, a judicious mixture of every type of person available and eligible is aimed at.

All Territorial Army units are affiliated to a Corps or Regimental Centre. Territorial Army units wear the badges, buttons, etc., of the Corps/Regiments to which affiliated. They use their Corps/Regimental crests and other insignia and carry on the traditions of the Corps/Regiments of the Regular Army. Corps Regimental Centres maintain close ties and interests with the Territorial Army units affiliated to them by offering to the Commanding Officer for recruitment as many as possible of their officers, junior commissioned officers and other ranks retiring on pension or discharge.

19. The recruit before enrolment must satisfy the following conditions:

- (a) Be of good character.
- (b) Be within 18-35 years of age.
- (c) Be a resident of the zone for which he has volunteered.
- (d) Be physically and medically fit.
- (e) Be made available by the service, if in Government employment.
- (f) May not belong to Reserve or have any Reserve liability.
- (g) May not have served any imprisonment for any crime.
- (h) May not belong to any criminal tribe.
- (i) May not have been dismissed before from the Territorial Army.

20. Volunteers are medically examined and, after characters have been verified, are enrolled by signing a Declaration, which is certified by the Commanding Officer.

The enrolled person is attested and takes an oath or is affirmed according to his religion.

21. The period of enrolment is:

- (a) Seven years in the Territorial Army.
- (b) Eight years in the Territorial Army Reserve.

22. Appointments and Transfers.—The commander of a Territorial Army unit is appointed by Army Headquarters and may be a Regular or Territorial Army officer and holds the rank authorized in the Peace Establishment of the unit.

During absence of over 60 days, another officer is appointed to command the unit.

The duties of a Commanding Officer in respect of Territorial Army personnel are analogous to those of the Commanding Officer of a Regular Army unit of equal rank.

The posting of Territorial Army officers to the appointments of Commanding Officer, Second-in-Command, Adjutant and Quartermaster is controlled by Army Headquarters, while company commanders are appointed under the authority of the Commander of the formation in which the unit is located.

Junior Commissioned Officers on the permanent staff are seconded for three years from the Regular Army and generally belong to the zone from which the Territorial Army unit is recruited. The secondment is arranged by mutual arrangement between the two Commanding Officers. Junior Commissioned Officers for the Territorial Army are selected for appointment from the cadre of the unit concerned as recommended by the Commanding Officer.

23. Transfers from one unit to another are generally not encouraged, but in case of change of domicile the enrolled person can be transferred.

24. Officers of the Territorial Army.

(a) Territorial Army commissions as Indian Commissioned Officers and Junior Commissioned Officers are granted to persons of Indian domicile who fulfil the following conditions:

- (i) Be ex-officers of the Regular Army, or
- (ii) Be serving civil officers of the Government of India or States, or
- (iii) Be a civilian gentleman.
- (iv) Must have Indian nationality.
- (v) Be within the age limits of 18-35 years on the date of appointment and be physically fit.
- (vi) Be in possession of technical qualifications necessary for the arm of service selected.
- (vii) Be selected by a Selection Board.

- (b) Persons who are desirous of obtaining commissions in the Territorial Army apply on form I.A.F. (T.A.) 9 through the local formation commander, who interviews the candidate and forwards the application with his recommendation to the head of the arm/service concerned at Army Headquarters through normal channels.
- (c) Officers are given commissions on probation for three years and are confirmed after they have passed the prescribed examinations.
- (d) On joining the Territorial Army, officers are allowed to count for purpose of increment of pay:
- (i) Previous full paid commissioned service in the Regular Army in full.
 - (ii) Previous called out or embodied service in full.
 - (iii) Previous service in the Territorial Army or Reserve up to one-quarter of the total service rendered.
- (e) Terms of appointments are :
- (i) Commanding Officer 3 years
 - (ii) Adjutant 3 years
 - (iii) Subedar-Major 5 years
 - (iv) Jemadar Adjutant 4 years
 - (v) Jemadar Quartermaster .. 4 years
- (f) Territorial Army officers, while serving with the Regular Army, take rank as junior of their degree except when embodied for service, when seniority of rank is determined by the comparative service of the individuals.
- (g) Substantive promotions are according to time scales laid down as below:
- Second-Lieutenant to Lieutenant: After completion of 3 years' service.
 - Lieutenant to Captain: After completion of 8 years' service.
 - Captain to Major: After completion of 18 years' service.
 - Lieutenant-Colonel and above: By selection.
- The Junior Commissioned Officers are promoted according to vacancies in the cadre of the unit.

(h) Pay of officers is laid down as follows :

- (i) **Indian Commissioned Officer:** When training, lowest pay of rank in the Regular Army; when embodied for service, the pay of rank according to service.
- (ii) **Junior Commissioned Officer:** Pay of lowest rank when undergoing training; pay of rank and service when called out or embodied.
- (i) **Officers are entitled to the allowances applicable to Regular officers of similar rank in similar circumstances.** Every officer on joining the Territorial Army receives an initial outfit allowance, which he may have to refund if he relinquishes his commission within three years.

25. "Other Ranks" Enrolled.—The other ranks for the Territorial Army are recruited by unit commanders through the Army Recruiting Organization.

26. Training.—Military training for units of the Territorial Army consists of:

- (a) **Recruit Training.**—Every person appointed to a provincial unit is embodied for 30 days in a year for recruit training.
- (b) **Annual Training.**
 - (i) **Provincial Unit:** every person is liable to be embodied for two months in each training year for annual training.
 - (ii) **Urban Units:** every person belonging to urban units is liable to undergo annual training for a period not less than 30 days and not more than 60 days during which he may be embodied for annual camp for not less than 4 consecutive days.
- (c) **Voluntary Training.**—Every enrolled person can be embodied under the orders of the local force/area commander for such periods of voluntary training as may be sanctioned by the Central Government.

27. During training enrolled persons get the lowest pay of rank of the Regular Army, but on embodiment get the full pay of rank and service.

28. Embodiment.—When an enrolled person of the Territorial Army is called up for training or for service with the Colours, he

is known to be embodied for service under the Territorial Army Act of 1948.

Section 5. BORDER SCOUTS

29. The Regular Army has a force of Border Scouts organized into wings primarily for protecting the frontiers of India. Each wing consists of three infantry battalions and a complement of other arms and services necessary for the wing to function as an independent formation.

The administration of the units is the responsibility of the formation in which located. The terms of service for all ranks are similar to those for equivalent ranks in the Regular Army.

Section 6. THE NATIONAL CADET CORPS

30. On 15th July, 1946, the Government of India constituted a National Cadet Corps Committee to consider the whole problem and make recommendations for the establishment of a Cadet Corps Organization in both schools and universities.

The Committee submitted its report in March, 1947. In early 1948 the Government of India decided to implement the recommendations, and in the winter session of the Parliament in 1948 a National Cadet Corps Act was passed.

31. **Functions.**—The aims of the National Cadet Corps are:

- (a) Development of leadership, character, comradeship and the ideal of service.
- (b) Stimulation of interest in the defence of the country to the widest possible extent.

32. By the inculcation of the qualities of leadership in a large number of our youth, it is hoped to build up a big mass from which potential officers for the Armed Forces may be selected.

It can be safely expected that a large proportion of the cadets will take up an active army career, while others will be available in case of national emergency.

33. **Central Organization.**—A National Cadet Corps Directorate in the Ministry of Defence deals with the whole subject of the National Cadet Corps.

34. **Composition of the Corps.**—The National Cadet Corps consists of three divisions as follows:

- (a) **Senior Division.**—To provide service training to undergraduates. Present target is 15,000 cadets.

- (b) **Junior Division.**—To build up the physique and character of school students to increase the number of suitable candidates for the National Defence Academy. Present target is 30,000 Cadets.
- (c) **Girls' Division.**—To develop the personality of the girls to take up some duties normally carried out by men, in case of national emergency.

35. **Recruitment.**

- (a) Recruitment to the Senior Division is from male undergraduates between the ages of 17 and 26 from any university. The candidates can apply for any of the following wings :
 - (i) The Army Wing: All arms/services of the Army.
 - (ii) The Naval Wing: Restricted to towns where naval facilities are available.
 - (iii) The Air Force Wing: Restricted to towns where flying facilities are available.
- (b) Cadets for the Junior Division are recruited from male students between 13 and 17 years of age from any school.
- (c) Recruitment to the Girls' Division is from the female students of any university or school.

36. **Terms of Service.**

- (a) Enrolment in the National Cadet Corps is voluntary and no liability to service is attached, although all volunteers undertake to abide by the Corps Directives and endeavour to be efficient.
- (b) Cadets do not receive any pay except railway fares to and from camp and free rations during camp and cadre courses.
- (c) Cadets have to be medically fit and serve a term of two years with the unit.
- (d) **Officers.**
 - (i) Regular Officers of the Armed Forces are attached to National Cadet Corps units for purposes of co-ordination, control and training.
 - (ii) National Cadet Corps Officers of the Senior Division. Professors and teachers between the ages of 25 and 35 years, of good physique and medically fit, with an aptitude for the Army, are selected after

three to four months training according to the arm and service and are commissioned as Second-Lieutenants in the National Cadet Corps. The time scale promotions are:

On being commissioned: Second - Lieutenant (Gold Stripe and Star).

After 3 years' service: Lieutenant (Gold Stripe and two Stars).

After 8 years' service: Captain (Gold Stripe and three Stars).

After 15 years' service: Major (Gold Stripe and Ashoka emblem).

Senior Division officers get the pay of rank of Regular Army officers during camp, courses and during training with Army units. During the above periods they are entitled to free travelling and messing facilities.

- (iii) **National Cadet Corps Officers of the Junior Division.**—Officers for the Junior Division are selected from amongst school-teachers with similar qualifications as for the Senior Division, except that the age limits are between 23 and 38 years. After two months' training with the Regular Army, the selected teachers are gazetted and posted to Junior Division units.

The terms of service are similar to those for the Senior Division except that they are ranked with Junior Commissioned Officers, and their time scale promotions are:

On being commissioned: Third Officer (Silver Stripe and one Star).

After 3 years' service: Second Officer (Silver Stripe and two Stars).

After 8 years' service: First Officer (Silver Stripe with three Stars).

After 15 years' service: Chief Officer (Silver Stripe and Ashoka emblem).

37. Training.—Cadets of all divisions do parades totalling four hours in a week. Senior Division cadets attend a 15-day annual camp, while Junior Division cadets do a 10-day camp.

Training is arranged so as not to interfere with the educational curriculum and is designed for Junior Division cadets to qualify for Certificates "A," Parts I and II, and Senior Division cadets to qualify for Certificates "B" and "C." The tests are arranged by the Directorate and conducted by officers of Regular Army. Those who qualify are entitled to wear the following proficiency stars on both sleeves of the uniform three inches below the point of the shoulder:

Junior Division.

Certificate "A," Part I. White Star.

Certificate "A," Part II. Red Star.

Senior Division.

Certificate "B," Green Star.

Certificate "C," Blue Star.

38. **Uniform.**—Officers and cadets are allowed to wear uniform only on parade and during training. The clothing is supplied by the Army and kept within the school premises. The cadets wear the following badges of rank:

Junior Division.

Cadet: no badge of rank.

Lance Cadet: one White Bar.

Cadet Group Leader: two White Bars.

Cadet Section Leader: three White Bars.

Cadet Troop Leader: three White Bars and Ashoka emblem on top.

Badges of rank are worn on the upper arm.

The Cadet Under-Officer and Cadet Senior Under-Officer wear one and two red stripes on the shoulder epaulet respectively.

PART II

COMMAND AND CONTROL

Chapter IV. Principles of Command.

Section 1. The Commander.

Section 2. Chain of Command.

Section 3. Conduct of Command.

Chapter V. The Staff and its Functions.

Section 1. Staff's.

Section 2. Staff Officer and His Duties.

Section 3. Staff Work.

Section 4. Relationship.

Section 5. Correspondence.

Chapter VI. Static Formations.

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Chapter VIII. The Unit and its Command.

Section 1. General.

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Section 3. Junior Commissioned Officers (J.C.Os.).

Section 4. Non-Commissioned Officers (N.C.Os.).

CHAPTER IV

PRINCIPLES OF COMMAND

Section 1. THE COMMANDER

1. **General.**—The Commander in the Army occupies a unique position because he has the authority and responsibility which goes with that power. A good Commander is one whose men follow him willingly wherever he wants them to go and who are prepared gladly to face death, if necessary, to bring victory nearer.

The Commander must, therefore, have qualities of head and heart by which he can win the confidence of his men and command them to go through various hazards of life to gain the laurels of victory.

The essential qualities of a Commander and a leader are laid down in the Training Regulations. By inheriting and cultivating those necessary attributes of leadership, the Commander learns:

- (a) To command.
- (b) To lead.
- (c) To train.
- (d) To administer.

2. **To Command.**—Command is the process by which the Commander tells his subordinates what to do, as one might tell one's servant. The Commander, therefore, must have authority to order and the ability to communicate legibly and properly to his subordinates what he wants to be done.

Authority in the Army is obtained by virtue of the rank that the Commander holds. The ranks in the Army are:

(a) **Officers.**

<i>Rank.</i>	<i>Insignia.</i>
General	Cross swords, star and Ashoka emblem.
Lieutenant - General	Cross swords and Ashoka emblem.
Major-General	Cross swords and a star.
Brigadier	Ashoka emblem and three stars in a triangle.
Colonel	Ashoka emblem and two stars.
Lieutenant - Colonel	Ashoka emblem and one star.
Major	Ashoka emblem.
Captain	Three stars.
Lieutenant	Two stars.
Second - Lieutenant	One star.

(b) **Junior Commissioned Officers.**

Subedar-Major	Three stars with stripe.
Subedar	Two stars with a stripe.
Jemadar	One star with a stripe.

(c) **Non-Commissioned Officers.**

Havildar	Three chevrons.
Naik	Two chevrons.
Lance-Naik	One chevron.

3. The powers of command and the responsibility for each rank are laid down in Regulations for the Army and are discussed in detail in later chapters.

4. **To Lead.**—Leaders are expected to lead fearlessly but always in the interest of, and respect of, those they lead. It is essential that all orders are obeyed implicitly and immediately. The men must understand why a certain thing is to be done, but should never question the decision.

Leadership is acquired by merit which is a result of experience, training and study. Every Commander must endeavour to be a good leader: only then can he reach the top of the ladder.

5. **To Train.**—Training in the Army is to prepare a unit for combat. Training goes on incessantly and there is no end to it because war requires perfection.

The training can be divided into various aspects:

- (a) Training of officers.
- (b) Training of men.
- (c) Training of units.

6. A progressive syllabus of training is planned and all ranks are put through its three main aspects:

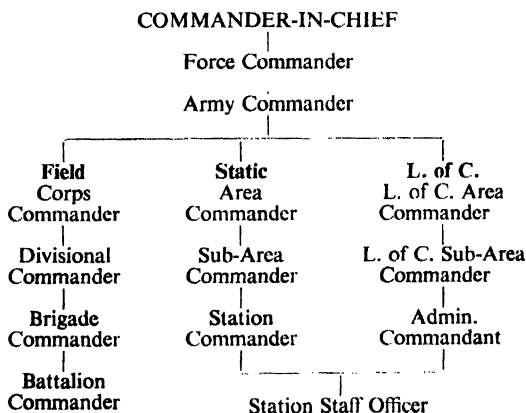
- (a) Individual training: Every person learns his duties and how to carry them out efficiently.
- (b) Collective training: The individual is integrated as part of the unit, which is put through its battle practices.
- (c) Special training: Higher commanders and specialists.

7. **To Administer.**—Administration is a wide term which means looking after men and material and is dealt with in detail in later chapters.

Section 2. CHAIN OF COMMAND

8. The outcome of an action is dependent on the combined effect of many activities, and the Commander must know how the various arms and services work and what are their limitations. He must know how to deal with his superiors, equals and subordinates and members of other services and civilians. He must know how to co-operate with other services, particularly the air.

9. The Army is organized on a pyramidal basis where one commander commands three or four subordinates. Commands, for purposes of distinction, may be divided into Field, Static, or Line of Communication Command, depending on its functions. The chain of command of the three different types is as follows:



Section 3. CONDUCT OF COMMAND

10. Orders.—The Commander issues orders to his subordinates either personally or through his staff. It must be his constant endeavour to exercise direct personal command by visits to lower formations and troops and by holding conferences.

The Commander must draw a correct line between centralization and dispersion of authority. For co-ordination and control a certain amount of centralization is essential, but too much interference by superior Headquarters with the working of subordinate formations does not help. The agent must either be trusted or got rid of. Suspicion that the goods may NOT be delivered is NOT conducive to efficiency.

The Commander can make correct decisions and give correct orders only if he is aware of the latest situation, the implications and the general rules of conduct. The most difficult problem in war is to get the exact, real and detailed picture of the situation. It is the important duty of the staff to collect and pass this information to the Commander.

11. Information.—The collection of information is the responsibility of all ranks, who must be inquisitive and constantly vigilant to detect anything unusual and pass it to the higher formation. It is the responsibility of the Commander to co-ordinate all the available means for obtaining information. Tasks should be allotted to the various agencies according to their capabilities.

12. The sources in the field are:

- (a) Maps, photos and air recces.
- (b) Observations from the ground.
- (c) Contact reports from forward troops.
- (d) Interception of enemy wireless messages.
- (e) Interrogation of enemy prisoners, captured civilians and documents.
- (f) Spies and other agents installed in the enemy territory.

13. The information received from the various sources must be quickly collected and sifted. In every unit there must be an organization responsible for the collection of information. Sifting is done by a judicious process of elimination. The information must be passed quickly to senior, adjacent and junior formations.

While it is necessary to collect information about the enemy, it is doubly essential to check leakage of information about one's own troops. Every Commander must ensure that security arrangements

are good and checked regularly. It must be the constant care of all ranks to prevent leakage of information.

14. Appreciation.—Depending on the information available and for every operation contemplated, the Commander makes an appreciation, which should take all matters into consideration under the following main heads:

- (a) **Aim.**—The purpose of making the appreciation.
- (b) **Factors.**—All points relevant to the issue, like enemy concentrations, own troop movements, time and space factors, etc., are considered and evaluated.
- (c) **Courses Open.**—The possible alternatives which are open to both sides are examined and the most favourable alternative selected.
- (d) **Plan.**—A brief plan is outlined to accomplish the task according to the selected alternative with the means available.

15. Orders and Instructions.—Based on the outline plan, the Commander or his staff issues orders and instructions to the subordinates. The orders must be clear and definite. Personal touch must be maintained to inspire confidence and determination in the subordinates and to ensure that the intentions of the Commander are understood. No Commander, from the highest downward, must ever forget that human nature is the ultimate factor on which his plans, movements and operations depend.

16. Command Orders may be classified as follows:

- (a) **Standing Orders**, which give in outline the basic principles of conduct for the force. They are based on general considerations and remain constant.
- (b) **Routine Orders**, which are issued daily or at intervals as required to regulate the daily life of the force.
- (c) **Operation Orders**, which are issued for conducting a particular operation to fulfil the intention of the Commander and to ensure the full co-operation of all arms and services.
- (d) **Operation Instructions** are personal instructions by the Commander to a subordinate commander by name to conduct a certain operation. They give more latitude and scope for initiative to the addressee than the operation order to the lower formation.

- (e) **Administrative Orders** for administration and maintenance of the force, and include detailed instructions to the services concerned.

17. The orders must be clear and concise. They must only contain what the recipient must know to fulfil the tasks allotted to him. The orders must be carried out in spirit and form unless they are changed or cancelled by the originator. Only in exceptional circumstances may a subordinate deviate from the formal orders, and in such an emergency he must take full responsibility and immediately inform the superior Commander of the reasons for his action.

The orders must be passed through normal channels. In an emergency, if it becomes necessary to deviate and issue orders direct to the lower formation, the intervening commands must be informed of the action taken at the earliest opportunity.

18. **Method of Passing Orders.**—Orders can be passed by any of the following methods:

- (a) **Verbal**, when the Commander communicates the orders directly to his subordinates either through wireless or personally.
- (b) **Written**, printed, typed or handwritten orders are passed through signal channels according to their priority.
- (c) **Signals**, by line telegraphy (L/T), wireless (W/T), or visual telegraphy (V/T), as the situation permits.
- (d) **Liaison** officers and other ranks may be detailed to carry orders and messages, especially in the forward areas.

19. The orders must be passed quickly and should reach the person who has to take action well in time. For co-operation among the various arms and services affected, the originator gives the necessary distribution.

20. For quick transmission of orders it is essential to have good intercommunications. The responsibility is as follows:

- (a) The higher formation provides and maintains communications to the next lower formation.
- (b) Each formation maintains communication with the formation on its left.
- (c) Every formation is responsible for having its internal communications.
- (d) Every formation is responsible for having communications with its supporting arms.

21. **Execution of Orders.**—The Commander is responsible not only for issuing orders but also that they reach the destination in time and are executed according to his intentions and produce the desired results.

The execution of orders throughout all subordinate commands follows the following sequence:

- (a) The orders are received, read and understood.
- (b) The appreciation is made and the line of action decided.
- (c) Reconnaissance and necessary preparations are made.
- (d) Plan is formulated.
- (e) Plan is communicated to subordinates.
- (f) Operations are controlled from the Headquarters.

22. The Headquarters of any formation is the nerve-centre where all information is collected, sorted and passed to the Commander, from where the orders emanate, and from where control is maintained on all activities.

The strength of a Headquarters and its jurisdiction depend on the number of formations under command. The higher the command, the bigger would be the headquarters. In big Headquarters there is a staff cell for each function.

23. The location of Headquarters is an important function in the control. It should be centrally located and should have good lines of communications. The following factors should be borne in mind when selecting a site for Headquarters:

- (a) **Locality.**—Centrally located to facilitate receipt and despatch of information and orders.
- (b) **Accessibility.**—So that the Commander can reach and control his subordinates and heads of supporting arms and services; good communications.
- (c) **Proximity.**—The Headquarters should be so located that the Commander can exercise personal influence on the reserves. This may mean division of Headquarters in echelons, the rear Headquarters controlling the reserves in direct communication with the commander at the forward echelon.
- (d) **Accommodation.**—Sufficient for officers and men. Living accommodation for the persons working at the Headquarters.
- (e) **Concealment.**—Cover from air, ground and observation.

- (f) **Security.**—Security from enemy, public and other interferences.
- (g) **Traffic Control.**—Control on vehicular traffic to check disclosures of the location to the enemy air.
- (h) **Airfield.**—Higher Headquarters should be located in close proximity of an airfield as the Commander generally makes use of inter-communication sorties and wants quick information from air observers.

24. In mobile operations, the Headquarters are generally split into three echelons:

- (a) **Advance (Tactical) Headquarters.**—Commander and such minimum staff as considered necessary to control the battle.
- (b) **Main Headquarters.**—For administration and maintenance from a safer distance.
- (c) **Rear Headquarters.**—For routine work.

25. The splitting of Headquarters has a direct bearing on efficiency as the staff is provided on the basis that all staff and officers will be working as a complete whole, and splitting should only be resorted to when tactically necessary.

26. The move of the Headquarters or any of its echelons should be communicated to all concerned as early as possible.

When a Commander leaves his Headquarters to visit other formations, he must ensure that means are available either for him to give direct orders *en route* or leave behind a responsible person who is aware of his intentions and has the authority to carry on during his absence. This is normally the duty of the Second-in-Command or the next senior in the formation.

The continuity of purpose is maintained by the fact that the staff, who knows the mind of the Commander, remains the same and the basic policy of the Commander remains constant.

CHAPTER V

THE STAFF AND ITS FUNCTIONS

Section I. STAFF

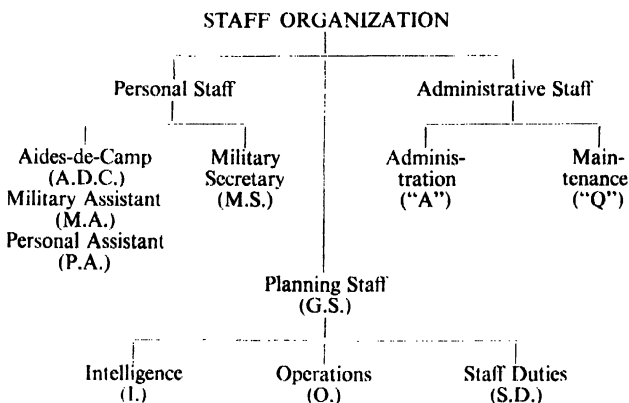
1. **Functions.**—Every Commander has a Staff which, like the various cells of the brain, converts the wishes and orders of the Commander into executive action. The Staff is one and must always work as a team. All Staff Officers are the agents of the Commander. Every Commander can only directly command and control a limited number of subordinates—the golden number is four. It is through the Staff that he communicates these orders to the large forces under his command. The main purpose of the Staff is to help:

- (a) The Commander, to let him concentrate on thinking, planning and deciding on important issues by relieving him of details and personal worries.
- (b) The subordinates in knowing the mind of the Commander and how to interpret his ideas and decisions.
- (c) The troops to be happy and contented.

2. The Staff can be divided into the following categories:

- (a) **Personal Staff.**—Relieves the Commander of all personal worries and details. Controls the postings and transfers of subordinate commanders and staff.
- (b) **Planning Staff.**—Receives information, sifts and passes to the Commander. Prepares plans and issues orders to implement the selected plan. Controls the operations.
- (c) **Administrative Staff.**—Responsible for maintenance and administration of the troops and forces under command.

3. The main divisions of the Staff are:



4. Each Staff organ in itself consists of the following three cells:

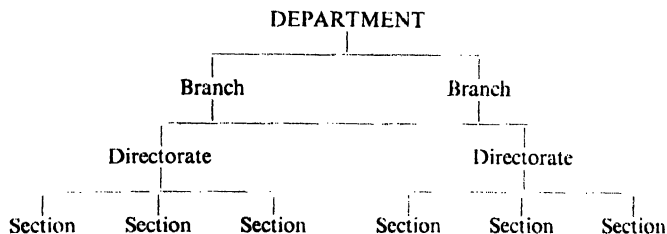
- (a) The Head of the department,
- (b) The Staff Officers,
- (c) The clerical staff.

5. Head of Department.—The Head of a department/branch exercises the same functions in respect of his staff as does the Commander in respect of his subordinate commanders. The Head is entirely responsible for his subordinates.

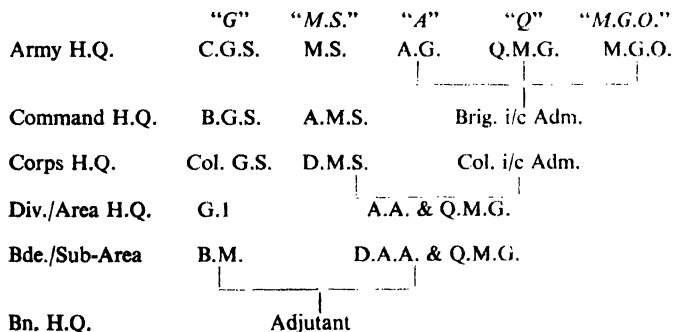
The number of Heads of departments that one superior Head can control is variable, but the golden rule is again four.

The Staff channel of control is identical to the command organization except that it works in an inverted way—the higher the commander, the bigger would be the Staff and vice versa till we get to the stage where all Staff functions are conducted by one and the same person, like the adjutant in a battalion.

6. The various echelons of organization are:



7. The chain of Heads of Staff in formations is as follows:



Section 2. STAFF OFFICER AND HIS DUTIES

8. **The Staff Officer.**—The successful application of command, control and co-ordination can only be achieved by the Staff Officer who has a sound knowledge of Army organization, plenty of imagination, energy, foresight and powers of clear thought and expression.

The Staff Officer should have the following attributes:

- (a) **Loyalty.**—For any team to work smoothly there must be a team spirit. A Staff Officer to produce this formation spirit must have the following loyalties—

- (i) **To his Commander.**—He signs for the Commander and ensures that he is kept in the complete picture, warned of all implications. Once a decision has been made by the Commander, the Staff must carry out the instructions without question.
- (ii) **To his Subordinates.**—As he gives the orders for the Commander, he should not assume the mantle of another master. He should be a medium of communication and should ensure that there is good understanding between the Commander and his subordinates. There must be proper liaison between the various levels of Staff at the higher and lower formations. Interchange of officers between units and Staff of formation helps a lot.
- (iii) **To the Troops.**—He must keep the welfare of the troops always in the forefront. Everything must be done to get to know the troops personally and to ensure that their difficulties are understood and removed quickly. The “chair-borne” Staff is NO good. All Staff Officers must visit troops, keep personal touch and remember that they are the servants of the serving soldier.
- (b) **Sociability.**—As the Staff Officer has to get on with so many different types of persons, it is essential that he must be a good mixer. He must know how to gain confidence and to obtain the “line gap” which gives the insight into the affairs of the force.
- (c) **Responsibility.**—All Staff Officers have to shoulder great responsibility as, in the absence of the Commander, they have to take and communicate decisions for the Commander. They must know how to shoulder and delegate responsibility to juniors. Failures of the Staff are the downfall of the formation, and those responsible must be removed.
- (d) **Competency.**—A Staff Officer must be competent in his work; he must be thoroughly conversant with Staff work. He must never adopt either an “ostrich”-like or a “slave”-like position. He must remain honest, straight and firm, but at the same time be adaptable to all suggestions.

Section 3. STAFF WORK

9. Staff Work.—The Staff, being a medium, has to perform the difficult task of interpretation of the Commander to the subordinates and vice versa, and for success it is essential that this interpretation is quick and accurate.

The following are some of the attributes of good Staff work:

- (a) **Accuracy.**—All Staff work must be accurate. Always try to be perfect and meticulous in detail. It is never possible to attain the ideal, but the greater the accuracy the greater will be the confidence of the superior headquarters and the troops.

If a mistake has been made it should be accepted with good grace and put right immediately. "Face saving" devices should not be used, nor should the mistake be covered up.

- (b) **Speed.**—It is essential to dispose of work expeditiously. Orders must be given out quickly and should reach the addressees as early as possible to give them the time for preparation and execution.

To be accurate and quick, it is essential that all Staff Officers know their job and do not "pass the baby." They should take decisions within the limits of their powers laid down.

- (c) **On taking Orders.**—All Staff Officers must always carry a note-book and pencil and note down all instructions immediately. Do not trust your memory too much; one day in the rush of work you may just miss a salient point and invite catastrophe.

All conference minutes should be taken and passed to all concerned quickly.

- (d) **On passing of Orders.**

- (i) **Written Orders.**—The Staff Officer may have the advantage of having a stenographer, in which case he can dictate orders, but otherwise he has to write them out himself. All military orders are prepared according to set rules and all officers must always carry the outline pro-formas of such orders. This saves time and ensures accuracy.

- (ii) **Verbal Orders.**—Orders may have to be passed by wireless or by telephone. All officers must know both procedures and use them as often as possible to avoid written orders, which take time. Security and secrecy must be observed.
- (e) **On receipt of Orders.**—Office routine must ensure that orders reach the person who has to act on them quickly. They should not be routed through various channels of Staff Officers.
All acknowledgments asked for must be immediately complied with.
- (f) **Channels of Correspondence.**—The right channels must be laid down and always used. There must be very strong reasons to deviate from the fixed lines. If any channel is short-circuited, the proper authority in the chain must be duly informed.
- (g) **Communications.**—The various means of communications and how to use them are given in Chapter X. Good inter-communication is essential for good Staff work.

10. **Office.**—Each Staff Officer must have an office and must ensure that it is well laid out, ventilated and clean. It should have all the facilities necessary for him to work peacefully and quickly. In the office the main functions of the Staff Officer may be divided into:

- (a) Dealing with files.
- (b) Dealing with clerks.
- (c) Dealing with visitors.

11. Files.

- (a) In Army Headquarters the Whitehall Filing System is used, according to which the following three files are kept on the same subject:
 - (i) **Reference File**—on which inter-departmental noting is carried out.
 - (ii) **Branch Memorandum**—on which inter-branch correspondence is carried out.
 - (iii) **Part Case**—in which are kept all documents relevant to the subject.

- (b) In lower formations only one file is kept on each subject, and each branch uses the distinguishing letters "G," "A" or "Q" when numbering correspondence. All files are consecutively numbered and bear the main headings and the subject on the top cover.
- (c) All documents referring to the same subject must be kept in the same file in the sequence they arrive or are dispatched. The gist of the contents of each letter should be given briefly on the minute sheet in the sequence of pages numbered in the file.
- (d) Each letter is consecutively numbered and filed upwards.

12. Clerks.

- (a) The head of the administrative branch is the Commanding Officer of all the clerks, and all transfers, promotion and distribution of duties are done by him.
- (b) For general co-ordination of all office routine there is generally a Superintendent/Chief Clerk, who supervises the work of all the clerks.
- (c) All clerks are responsible that—
 - (i) all books, regulations and references are kept in proper place and are amended up to date;
 - (ii) they are acquainted with the work to which appointed;
 - (iii) all documents and files on charge are kept in safe custody;
 - (iv) no irregularities occur and, if any are noticed, that they are brought to the notice of the Head at the earliest opportunity.
- (d) The work of all clerks must be checked regularly. They will NOT handle any public or regimental money.

13. Visitors.—Every Staff Officer must be prepared to accept visitors at all times. He should adopt an "open door" policy and should know how to deal with and dispose of them expeditiously, but satisfied.

Hot tea or a cold drink puts a visitor at his ease, the interview is finished quickly and, what is more important, in an amicable atmosphere.

The rule should be to ask the visitor to sit down and give him an air of importance, not to show that you are very busy and too important.

14. Office Routine.

- (a) In every office there must be a system which will expedite disposal of the daily correspondence, facilitate tracing of any document required, timely despatch of all reports and returns, and proper accounting of all funds, accounts and security documents.
- (b) The following is the general office routine for disposal of daily mail in an infantry battalion:
 - (i) The mail bag is opened by the adjutant/head clerk.
 - (ii) All unclassified mail is passed to central registry for registration and, after perusal by the adjutant, is returned to central registry and distributed to the various offices concerned.
 - (iii) All classified mail is opened personally and registered by the adjutant, who passes it by hand to the officer of the branch concerned.
 - (iv) All correspondence is registered by the recipients in the Register of Documents (I.A.F. Z2226).
 - (v) The branch puts up the document, properly catalogued, minuted and with the reference letters flagged, to the superior officer who is to take action on the document. Priority slips are attached to files where and when necessary.
 - (vi) All outgoing correspondence after signature and registration is sent to the despatch clerk, who stamps the envelope and enters the documents in the Local Despatch Book or Postage Account Book (I.A.F. Z2016).
 - (vii) Postal orderly carries the mail for despatch.

Section 4. RELATIONSHIP

15. To achieve good results it is essential that there must be continuity and co-operation between the Commander and his subordinates, the Staff, subordinate commanders and service heads.

16. Unity of purpose is achieved by the fact that there is a single Commander in whom the whole authority is vested.

Every component has a well-defined role which is co-ordinated by "Staff" for the achievement of the common goal.

The Commander, the Staff and the services should know their respective responsibilities and work in harmonious relationship.

The relations between the Staff and the services should be like the relationship which exists between the Staff and subordinate formations.

Each service should have its department head and should be allowed to deal direct with units on service, departmental and domestic matters. The head of the service, as adviser to the commander, should have direct access to him.

The Staff, units and services must always work hand-in-glove. They should not be isolated or separated from one another. It is the duty of each, by exchange of information, to keep the other in the picture. While it is the duty of the Staff to help the Heads of arms and services, it is the bounden duty of the latter to accomplish the orders of the Commander.

Section 5. CORRESPONDENCE

17. Types of Correspondence.—Correspondence can be classified as follows:

- (a) Official.
- (b) Demi-official.
- (c) Private.

18. Official.—Official correspondence is on purely official matters between two headquarters, branches or service and is of the following types:

(a) **Formal letters.**—These are of two types—

- (i) Letters signed by a Staff Officer on behalf of the Commander are called “Directed” letters and written as shown in specimen “A.”
- (ii) Applications submitted by officers on personal matters and known as “Personal” letters are written as shown in specimen “B.”

(b) **Routine or Memorandum.**—The usual form of letter for normal correspondence between two headquarters, formations and units. The layout is shown in specimen “C.”

(c) **Inter-office Note.**—I.O.N., as the name implies, is only for inter-office correspondence where the staffs are widely separated and it is necessary to communicate decisions in writing. The I.O.N. should be avoided as far as possible and matters settled by telephone conversation or personal contact.

19. **Demi-official.**—When a commander or a Staff Officer wants to address a particular officer on intimate matters which need not be made official, the form as shown in specimen “D” is used.

20. **Private.**—Private correspondence, except for applications by officers on personal matters, should not bear official numbers or stamps. In field areas the private mail is censored and Staff Officers must ensure that proper arrangements are made for receipt, censorship and dispatch of mail.

SPECIMEN “A”—DIRECTED LETTER

TELEPHONE NUMBER

No 13/3/Q
19 DIVISION HEADQUARTERS
C/O NEW DELHI, 51APO 5 Nov 50

Sir,

1 I am directed by the GOC to draw your attention to the immediate necessity of provisioning for winter.

2 The following instructions have been issued to the supply and transport service to expedite movement forward of winter requirements.

(a)

(b)

Yours faithfully,
Lt Col
A A & Q M G

Brig. SETA RAM
207 In Bde
New Delhi 97APO

SPECIMEN “B”—PERSONAL LETTER

TELEPHONE NUMBER

CONFIDENTIAL

No 3/31 A
V CORPS HEADQUARTERS
C/O NEW DELHI, 61APO 9 Apr. 50

To

The Superintendent Police,
Amritsar District,
AMRITSAR.

Subject:—THEFT IN BUNGALOW OF CAPTAIN U.N. SINGH
Sir,

I would like to refer to your letter No. dated
in respect of the theft

Yours faithfully,
Brigadier in charge Administration

SPECIMEN "C"—ROUTINE LETTER/MEMORANDUM

TELEPHONE NUMBER

SECRET

No 1313/1-G
21 AREA HEADQUARTERS
C/O NEW DELHI, 23APO 7 Jun 50

To
Headquarters,
Noname Area,
987 Brigade.

Subject:—SECURITY OF INFORMATION

1 The necessity of security of information has NOT been fully realized by all formations in this command.

2
.....

3 Severe disciplinary action will be taken against persons infringing the security regulations.

Col
Col i c Adm

SPECIMEN "D"—DEMI-OFFICIAL LETTER

SECRET

From
General U. P. START SINGH,
M.V.C.

DO No. 31313/A
HEADQUARTERS BALLOON
DIVISION
C/O NEW DELHI, 23 APO 8 Dec 50

Dear

During my recent visit to the area I had an opportunity to visit various Refugee Camps.

I would be grateful if you would ask the Area Commander to make necessary arrangements for the displaced families of the Army personnel.

Yours,

Lt Gen B. HOSHIAR SINGH
General Officer Commanding-in-Chief
H.Q. Command

CHAPTER VI

STATIC FORMATIONS

1. **Functions.**—The main responsibilities of the static formations are:

- (a) Operations within the area.
- (b) Internal security.
- (c) Training.
- (d) Administration.
- (e) Maintenance.

2. **Chain of Command.**—For purposes of command and administration in peace, India is territorially divided into three commands.

- (a) Southern Command.
- (b) Eastern Command.
- (c) Western Command.

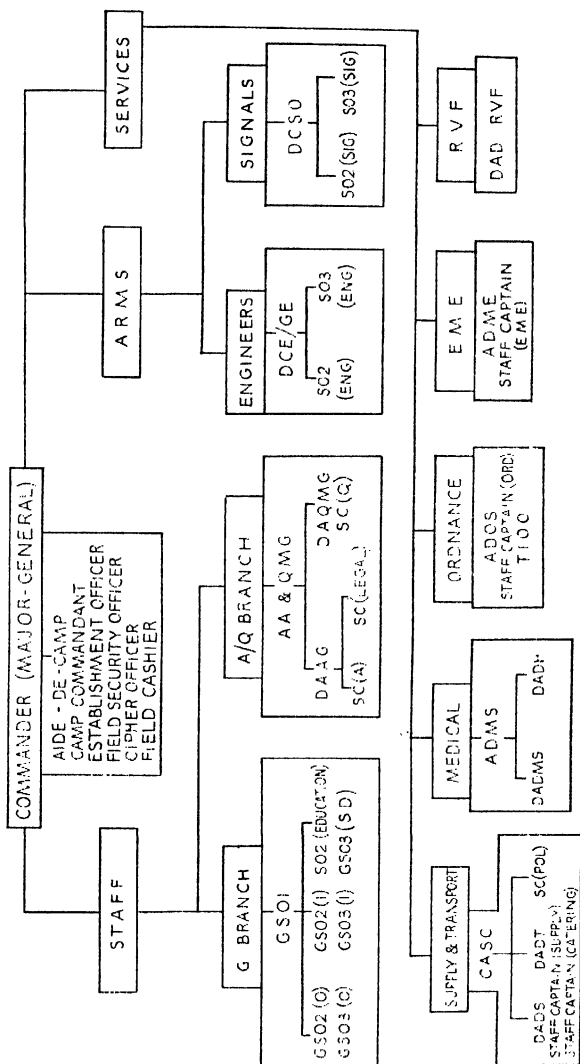
3. A General Officer Commanding-in-Chief (G.O.C.-in-C.) with the rank of Lieutenant-General is the commander of the demarcated geographical area and responsible for all troops located in that area and placed under his command. Operational troops which are located in the area are known as "Lodger" formations, and Command Headquarters are responsible only for their maintenance during the duration of their stay.

4. The command is exercised through two channels:

- (a) **Area Headquarters.**—Each Command is divided into various Areas, each commanded by a Major-General.
- (b) **Formation Headquarters.**—Through Divisional/Brigade/Unit commanders placed under command.

5. The training is carried out by the formations according to the policy laid down by Command Headquarters.

Staff and Services at Area Headquarters



The training establishments located in the Command carry out training according to the syllabus laid down by Army Headquarters. Command H.Q. can only exercise supervision and is responsible for local administration only.

6. To lighten the weight, the static Headquarters take over local administrative tasks, like courts-martial, courts of inquiry, ceremonial, etc., for the fighting formations lodged in the area, but the formations concerned still remain entirely responsible for all administration of units under command.

7. Maintenance is one of the major responsibilities of Commands. In addition to their own depots, many Army Headquarter depots are located in Commands and are looked after by the latter. It is the responsibility of Commands to maintain troops who are based on depots in their Commands.

8. **Command Staff.**—The staff at Command H.Q. is divided into:

(a) Command.

G.O.C.-in-C.
Personal Staff.
Military Secretary Branch.

(b) "G" Branch.

Brigadier General Staff (B.G.S.),
responsible for all "G" matters.

(c) "A"/"Q" Branch.

Brigadier in charge administration
(Brig. i/c adm.), responsible for all
"A" and "Q" matters.

9. **Subdivision of Commands.**—Each Command is divided into a number of Areas which take over considerable training and administrative responsibilities of the Command and give fighting formations more opportunity to concentrate on operational training and planning.

The staff of an Area is given on page 55.

10. **Sub-Areas.**—Each Area is again divided into Sub-Areas under the command of Brigadiers.

The Sub-Areas are the lowest formations in the chain of static command. They are responsible for training, administration and

maintenance of forces in their territory. This static chain absolves any war formation stationed in the Sub-Area from local administration so that it can operate without being tied to a particular territory.

A typical Sub-Area staff consists of:

Commander.

Brigadier.

"G" Branch.

G.S.O.2 (Major).

G.S.O.3 (Captain).

S.O.3 (Education).

A/Q Branch.

D.A.A. & Q.M.G. (Major).

Staff Captain ("A").

Staff Captain ("Q").

Services.

D.A.D. S. & T. (Major).

11. Station Commanders/Administrative Commandants.— In certain large stations where it is necessary to centralize control under one commander, a Station Commander/Administrative Commandant is appointed, and he becomes responsible for local administration and maintenance of the troops located in that station and to that extent is the commander of those troops.

He is assisted by a Station Staff Officer (S.S.O.).

12. Financial Powers.

- (a) **Powers of Write-off.**—When stores are lost, destroyed or found deficient, the person responsible for holding the stores should make an immediate report and cause the loss to be investigated and responsibility fixed. Where neglect, fraud or theft is discovered the necessary disciplinary action is taken against the individual(s) concerned.

The competent financial authority, after determining the opinion of the local audit officer, sanctions the write-off of the total amount of loss as below:

(i) Losses of Stores in Supply Depots.

Competent financial authority	Loss not due to theft, fraud or neglect Rs	Loss due to theft, fraud or neglect Rs
G.O.C. Area/Division ..	5,000	1,000
G.O.C.-in-C. Command ..	15,000	5,000
(ii) Other losses.		
Station Commander ..	200	
G.O.C. Area/Division ..	5,000	1,000
G.O.C.-in-C. Command ..	15,000	5,000
(iii) Irrecoverable Debts.		
G.O.C. Area/Division ..	5,000	5,000
G.O.C.-in-C. Command ..	10,000	10,000
(iv) Loss of Public Money.		
G.O.C. District/Area ..	1,000	1,000
G.O.C.-in-C. Command ..	5,000	5,000

- (b) Powers for Contracts.**—The contracts must be sanctioned by competent authority and once sanctioned the rates cannot be increased without the sanction of the next higher authority.

G.O.C. Division/Area ..	Rs3,00,000
G.O.C.-in-C. Command ..	Rs5,00,000

CHAPTER VII

FIELD FORMATIONS

1. In war the object of organization is to get formations and units in the best trim for battle, which demands initiative and mobility on the part of every commander. This is only possible if he is not tied down to the ground by administrative responsibilities.

The organization of the Army for war must have flexibility, resilience and permit decentralization of command, but at the same time ensure quick transmission and execution of orders. Every commander must be prepared to shoulder responsibility and the limits of his authority should be clearly defined and understood.

2. The formations for war are composed of units designed to carry out the following functions:

- (a) Command.
- (b) Intercommunication.
- (c) Reconnaissance.
- (d) Striking.
- (e) Supporting.
- (f) Administration.

All the above functions are interdependent and must be performed in harmonious relationships like the functions performed by various parts of the human body.

3. **The Composition of the Force.**—The force for purposes of war will generally consist of a number of Divisions which will be organized on War Establishments according to their particular roles. The Division is the basic formation on which the Army is organized. It is a balanced formation of arms and services which is required for any operation.

For any specific operation or for a particular role, extra formations and units are generally placed under command or in support from Corps or Army troops.

The Divisions, as their numbers increase, are grouped into Corps and Corps into Army.

4. The Army.—The Army in war is superior to Command Headquarters in peace. It is commanded by a General and may have one or two Corps and/or a number of independent Divisions.

The Army will have Army troops such as Engineers, Artillery and a higher proportion of services. In brief, it will be a smaller scale duplicate of the Army Headquarters. Two or more armies may be grouped into an Army Group.

5. The Corps.—A Corps may consist of two or more Divisions and will have proportion of Corps troops, Engineers, Artillery and services directly under command. It is commanded by a Lieutenant-General.

6. The Division.—The standard infantry Division generally consists of three Brigades and number of divisional troops to suit the special circumstances. It has the following main parts:

- (a) **Command.**—Divisional H.Q., H.Q. Artillery, H.Q. Engineers, H.Q. Signals, H.Q. Army Service Corps, H.Q. Electrical and Mechanical Engineers, H.Q. Medical, H.Q. Ordnance, H.Q. Provost.
- (b) **Inter-communication.**—Divisional Signals comprising Signal Headquarters and signal companies as required.
- (c) **Reconnaissance.**—Armoured Corps unit for reconnaissance purposes.
- (d) **Striking Force.**—Three infantry Brigades.
- (e) **Supporting Arms.**
 - (i) Artillery units consist of Field, Medium and Anti-tank Regiments according to conditions.
 - (ii) Engineers may have field park and field companies according to Engineer commitments.
- (f) **Administration.**
 - (i) Supply and Transport: Divisional transport companies and composite platoons according to number of formations.
 - (ii) Medical: Field hygiene section and field ambulances to provide medical cover.

- (iii) Ordnance: Divisional Ordnance sub-park.
- (iv) E.M.E.: Divisional recovery company and infantry workshop companies for providing vehicle repair cover.
- (v) Postal: Divisional postal unit.
- (vi) Veterinary: Mobile veterinary section where there are units with animal transport.
- (vii) Provost: Divisional provost company.
- (viii) Field Security: Field Security section.

7. For mountain warfare the mechanized transport will be replaced by animal transport, and Mountain Regiments of Artillery will be provided instead of the field and medium guns.

8. **The Divisional Staff.**—The Divisional Staff consists of two Principal Staff Officers, a G.S.O.1 dealing with all “G” subjects and an A.A. & Q.M.G. dealing with “A” and “Q” matters. Both are Lieutenant-Colonels and are assisted by a few lower grade staff officers and an Establishment Officer.

In addition to the staff, the Divisional Commander has technical advisers from each arm and service.

The duties of Staff and Service Heads are enumerated in Chapter V, paragraph 15.

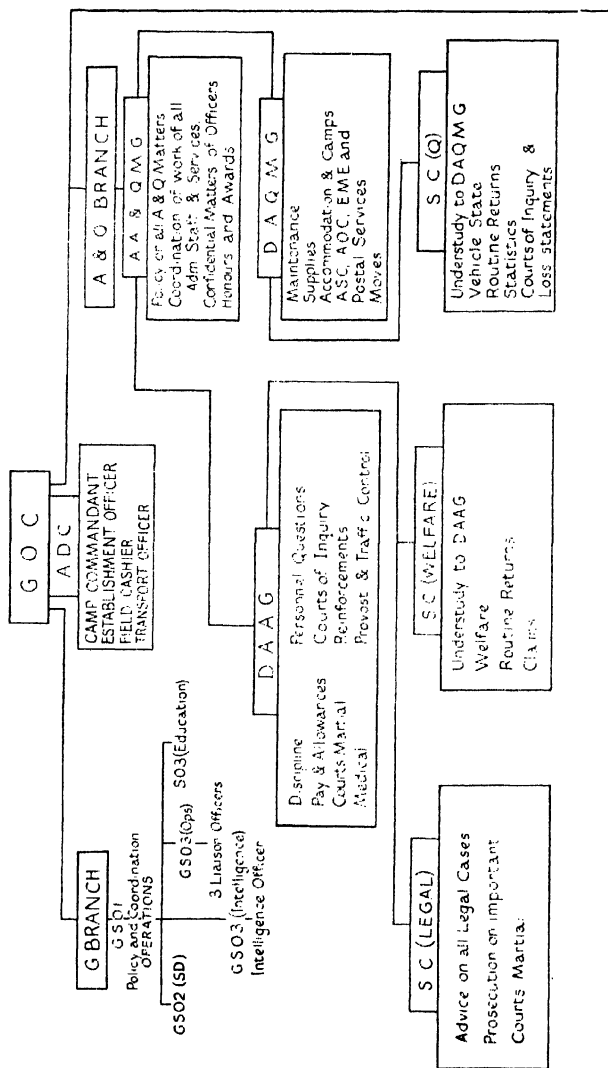
9. In an Armoured Division there are usually one Brigade of Armour and one of Lorried Infantry. Each Armoured Brigade consists of three Armoured Regiments with Artillery and Engineer units in support.

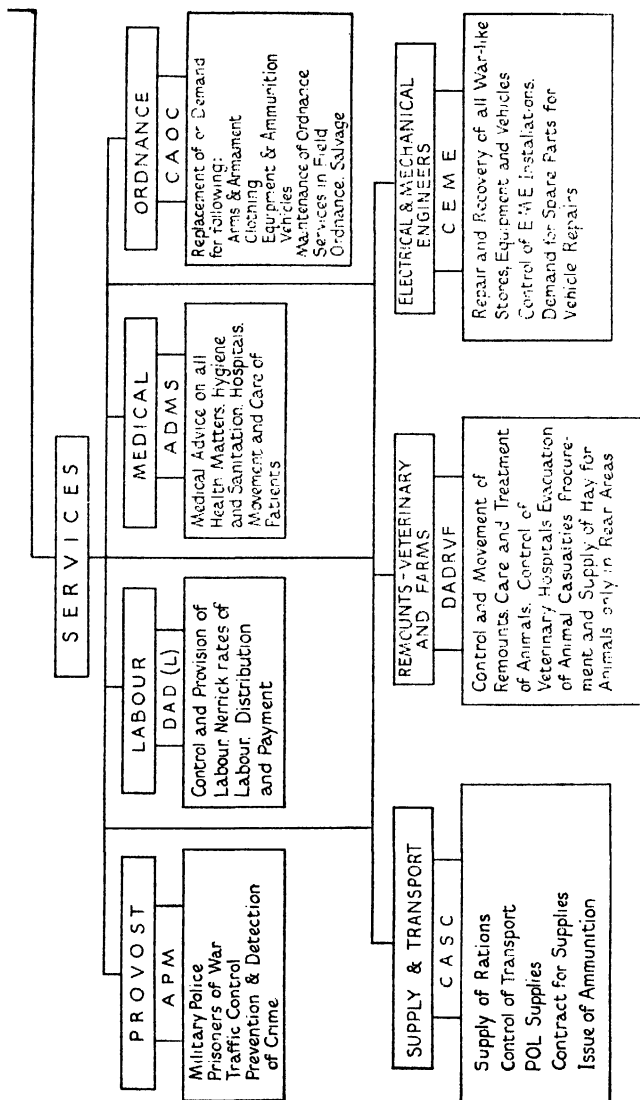
10. The Airborne Division is organized on the same lines as an Infantry Division, with the exception that it uses light equipment and more jeeps instead of heavier vehicles.

11. **The Brigade.**—An infantry Brigade consists of three infantry battalions and detachments of Artillery and Sappers are provided as considered necessary. Supply, transport, medical and other ancillary units are also attached according to role and commitments. The Brigade is commanded by a Brigadier, who has a Brigade Major responsible for “G” work and a D.A.A. and D.Q.M.G. as his principal “A” and “Q” Staff Officer. In addition, the Brigade has an Intelligence Officer, Transport Officer and Signal Officer.

12. **The Battalion.**—A Battalion is the main fighting unit of the infantry. It is self-contained in every respect. It is commanded by

Composition of a Divisional Staff and Distribution of Duties





a Lieutenant-Colonel, who has a Major as Second-in-Command and six Company Commanders, commanding the Headquarters, Administrative and four Infantry companies.

13. **The Company.**—The Company is commanded by a Commissioned Officer, who has a small Headquarters and three infantry platoons. A Company can operate independently.

14. **The Platoon.**—The Platoon consists of three sections and is commanded by a Junior Commissioned Officer. It is a composite fighting unit with its own direct support weapon.

15. **The Section.**—The smallest unit in the Army is the infantry Section. It normally consists of 8 to 11 men, and is commanded by a Non-Commissioned Officer.

CHAPTER VIII

THE UNIT AND ITS COMMAND

Section 1. GENERAL

1. **The Unit.**—The Army is organized on a pyramidal system, each unit under its own commander, and multiplied as many times as necessary to form the base for a superior command.

As infantry forms the greatest mass of our fighting forces, the organization and system of command of an infantry battalion has been selected as an example.

2. **Infantry Battalion.**—An Infantry Battalion is a composite unit, in every way self-contained and organized for all operational roles that may be envisaged. It is commanded by a Lieutenant-Colonel, who has a small staff and six companies under command.

Section 2. OFFICERS

3. **The Commanding Officer (C.O.).**—The authority of the Commanding Officer is paramount on all occasions and his orders are carried out by all ranks cheerfully and expeditiously. The Commanding Officer is personally responsible for everything connected with his unit. He has wide powers and he uses them judiciously to prepare his battalion for war and he commands it in battle. The responsibilities of the Commanding Officer are laid down in Regulations for the Army in India.

He is responsible—

- (a) for the maintenance of discipline, efficiency and proper order in the unit;

- (b) for the health and hygiene of all ranks;
- (c) for the supervision and control of all duties performed by all ranks under his command. He is accountable for all public equipment and stores of whatever description appertaining to or on charge of his unit;
- (d) for the correct issue of all supplies;
- (e) for all public and regimental funds of his unit;
- (f) for training all ranks under his command in their professional duties;
- (g) for correct maintenance of all records in respect of the men, funds, stores and equipment and institutions of his unit; and
- (h) for the correct payment of all emoluments to all ranks under his command.

In the temporary absence of the Commanding Officer, the functions of command are exercised by the next senior officer, who does not change any permanent policy and does not carry out promotions without the concurrence of the permanent incumbent.

4. The Second-in-Command (2 i/c).—Every unit has a Second-in-Command who acts for and replaces the Commanding Officer whenever it becomes necessary. He is mainly responsible for the training of officers and men and the administration of unit institutes, accounts and messes, and thus relieves the Commanding Officer of administrative encumbrances. Without reference to the permanent Commanding Officer he cannot change—

- (a) standing orders;
- (b) policy of training and administration;
- (c) the staff and carry out promotions, and
- (d) the policy regarding expenditure of funds.

The Second-in-Command, by virtue of his appointment, though he may not be the senior Major, exercises control over all other officers in the unit with the exception of the Commanding Officer. He is, therefore, selected by the Commanding Officer for his exceptional qualities.

5. The Company Commander.—The duties of Company Commanders are laid down in Regulations for the Army in India, para. 16. Company Commanders are responsible for the implementation of the policy and orders of the C.O. in all matters in respect of their companies. For their duties and functions they are directly

accountable to the C.O. In general their duties in respect of their companies are identical with those of the C.O. in respect of the whole unit. The Company Commanders are responsible for and have the opportunity of going into minute details of individual and collective training, administration, interior economy and welfare of their companies.

Each company is commanded by an officer who is responsible for its training and preparedness for war. He is entirely responsible for the correctness of the arms, accoutrements, ammunition, clothing, rations, and all other articles of public or regimental property on charge of the company, and carries out surprise checks to ensure accuracy.

He is responsible to the C.O. for the—

- (a) accuracy of all company records and documents and ensuring that sheet rolls and records of service of all ranks are checked once a year;
- (b) cleanliness of company lines, camps, cook-houses and latrines;
- (c) preparation of lists and records of all non-commissioned officers as to their fitness for promotion;
- (d) training of platoon and sections and for ensuring that men get opportunities to qualify for grade pay;
- (e) interior economy of the company, which means looking after personal problems such as pay, leave and food, regimental problems as welfare, fatigues and guards, and smartness in dress, drill and discipline.

6. The Company Officer.—Depending on the availability of officers, a junior officer may be posted to each company to assist the company commander in the interior economy and training of the company.

7. The Adjutant.—The Adjutant is the confidential staff officer of the C.O. who deals with all “G” and “A” matters. He is responsible to the C.O. alone and will not be interfered with by anyone else in the execution of his duties. He must, however, be tactful in his dealings with the company commanders and endeavour to carry out the routine of the unit with the least possible friction.

8. All orders of the C.O. are issued by the Adjutant and he is responsible for their accurate translation in the Hindi Order Book, and implicit obedience and observation by all ranks.

9. He is responsible for—

- (a) reporting to the C.O. all irregularities and infringements of orders;
- (b) inspection of all battalion guards and escorts before they are mounted;
- (c) receiving daily reports from the Subedar-Major and the orderly officer;
- (d) maintenance of all rosters of officers and checking of Duty Roster Book of the unit once a week;
- (e) interviewing all officers, J.C.Os. and N.C.Os. returning from courses, out-station duties and leave;
- (f) issuing regimental orders in peace and operation orders in war;
- (g) control of regimental police and band;
- (h) organization of battalion headquarters and offices; ensuring that all clerks are acquainted with the Official Secrets Act;
- (i) dealing personally with all classified documents and for their registration and safe custody;
- (j) instruction of the classes in the unit training cadres;
- (k) supervision of ammunition supply in war;
- (l) supervision of communications with out-stations; and
- (m) turn-out of men.

10. The Adjutant receives reports as follows:

- (a) Reports of all matters of an unusual nature such as deaths, arrests and desertions.
- (b) Daily reports except on holidays from the orderly officers coming off duty.
- (c) Relief reports from officers/J.C.Os./N.C.Os. returning from garrison or out-station duties.

11. The Adjutant keeps the following lists/documents:

- (a) Register of classified documents.
- (b) Confidential reports of all officers and their records of service.
- (c) Lists of all N.C.Os. and men who are likely to make suitable instructors.
- (d) War Diary and Log Book.
- (e) Officers' leave roster.
- (f) Character Rolls of J.C.Os. and N.C.Os.

12. The Adjutant by virtue of his position must set an example in dress, drill and discipline. He should be smart, fair and tactful,

and must gain the respect of all ranks. It should be the ambition of all young officers to aspire to this position.

13. The Quartermaster (Q.M.).—The Q.M. is the “Q” Staff officer and is also the services representative in the battalion. He is responsible for ensuring that his unit has everything to which it is entitled by regulation in the way of arms, weapons, clothing and supplies.

He is responsible for—

- (a) All unit buildings on charge of the unit and bringing to the notice of the C.O. and garrison engineer any alterations and repairs considered necessary.
- (b) Unit market and to ensure that no unauthorized additions and constructions are carried out and no unauthorized persons reside there. He is responsible for the Bania shop and that food is clean and wholesome.
- (c) Cleanliness of all unit cook-houses, latrines and gardens. He is in charge of the anti-malaria squad.
- (d) Allotment of accommodation, including married, and for lighting arrangements therein.
- (e) Receipt, distribution and accounting of all arms, ammunition, weapons and equipment.
- (f) Correct maintenance of all ledgers for all public and regimental stores.
- (g) Checking of all company stores/equipment and weapons with Q.M. ledgers.
- (h) Quarterly and annual audits of all ledgers.
- (i) Ensuring that all discrepancies are adjusted quickly.
- (j) Personal inspection of all explosives, ammunition and fired cases, before issue and on receipt. He is responsible that arms/equipment are regularly inspected.
- (k) Security of ammunition and weapon kots.
- (l) Cleanliness and sanitation of entire lines, including married quarters.
- (m) Upkeep of ranges, range materials and appliances.
- (n) Indenting, receipt and issue of all Ordnance stores. (He should be present when taking/handing over large consignments of stores.)
- (o) Indenting, receipt, stock-holding and issue of all rations and supplies. (Should note the quality of food supplied and report irregularities to the C.O.)

- (p) Indenting for Ordnance, Engineer and technical stores and arranging proper storage and safe custody. (All transactions from Q.M. are with companies and never with individual troops.)
- (q) All fire-fighting appliances.
- (r) Marking all stores issued from Q.M. stores in accordance with Equipment and Clothing Regulations.
- (s) Survey Boards, inspections and checks as laid down by Regulations. (He should remind the C.O. when these inspections are due.)
- (t) Keeping mobilization equipment, stores and camp equipment on charge in good condition and ready for use.
- (u) Inspecting workshops, armourers', carpenters', tailors' and mochi shops to see that they are clean and working properly.
- (v) The layout of all camps on the line of march, ensuring that water supply, cooking, washing and latrine arrangements are good and that the site is left clean after vacation by unit.
- (w) Submitting in time the various reports and returns required by superior Headquarters.

14. As the Q.M. is personally responsible for all stores on charge, therefore, on handing over charge, temporarily or otherwise, proper handing/taking over is carried out and receipt vouchers signed by both officers.

15. **Signal Officer.**—He is responsible for establishment and maintenance of communications, maintenance of signal equipment and training of the battalion signallers.

16. **Intelligence Officer (I.O.).**—He is responsible for collection, preparation of intelligence reports and training the intelligence section in their duties. He also performs the duties of the unit Security Officer.

17. **Transport Officer.**—Depending on the type of transport, the Transport Officer may be responsible for mechanical transport (M.T.) or animal transport (A.T.).

(a) **Mechanical Transport Officer (M.T.O.).**

- (i) He is responsible for all M.T. vehicles on charge, for their mechanical efficiency and for training drivers and their supervision.

- (ii) He should ensure that technical accounts and vehicle records are maintained according to Regulations.
 - (iii) He carries out daily and monthly inspections of vehicles and checks up inspection reports from workshops.
 - (iv) He maintains consolidated tables for inspection, mileage and consumption of petrol.
 - (v) He is responsible for indent and receipt, stock-holding and issue of P.O.L.
 - (vi) He investigates every case of accident to any unit vehicle.
 - (vii) He maintains vehicle running and P.O.L. accounts and ensures that vehicles are not used on unauthorized journeys.
- (b) **Animal Transport Officer (A.T.O.).**—A.T.O. is responsible for all the animals on charge of the unit. He is responsible for their maintenance and feeding. On the line of march, he is responsible for allocation of mules to various sub-units and to the baggage convoy. He ensures that the mules are properly loaded and led during marches. At halts, he supervises their feeding and watering. He is responsible for ensuring that the veterinary officer carries out normal duties.

18. **Medical Officer (M.O.).**—Each battalion has a Medical Officer who looks after the health of the unit and runs the unit medical inspection (M.I.) room.

The M.O. must ensure that the health discipline is good and that all precautions are taken to protect the health of the troops.

He is responsible for the medical stores and for training the battalion stretcher-bearers in medical duties.

Section 3. Junior Commissioned Officers (J.C.Os.)

19. **Subedar-Major (S.M.).**—The Subedar-Major is the confidential adviser of the C.O. and it is his duty to bring to the C.O.'s notice at once any occurrence in the lines or outside which may affect the discipline, welfare and reputation of the unit. The excuse that a certain matter had not come to his knowledge is never accepted, and for this reason he has to pry into others' affairs and to keep an eye on all activities.

The Subedar-Major is consulted on all matters affecting other ranks and communicates direct with the C.O. regarding the welfare of the troops.

He exercises supervision over all J.C.Os. and is the President of their Mess and Club.

The Subedar-Major is the highest position to which any rank and file can aspire and can only be achieved by long and meritorious service.

20. Jemadar-Adjutant (J.A.).—The Jemadar-Adjutant is a staff officer and assists the adjutant in the performance of his duties, whom he keeps informed of every occurrence which affects good order and military discipline.

Like the adjutant, he must be an example of smartness and efficiency for all ranks to copy. He should allow nothing to escape his notice and pay strict attention to the observance of all orders. He assists the adjutant in the instruction of training cadres, attends all unit parades and ensures that bugle calls are blown at prescribed times.

21. He is responsible for:

- (a) Issuing daily orders.
- (b) Detailing duty N.C.Os.
- (c) Parading all guards and escorts for inspection by adjutant.
- (d) Receiving reports from N.C.Os. coming off duty.
- (e) Inspection of office orderlies.
- (f) Supervision of recruit drill.
- (g) Defaulters and their supervision.
- (h) Duty Roster of J.C.Os. and unit buglers.
- (i) Hindi Order Book, Defaulter Book, Parade State Book and Unit Strength Return Book.

22. Jemadar Quartermaster (J.Q.M.).—The Jemadar Quartermaster is the staff officer who assists the Quartermaster in the performance of his "Q" duties. He is responsible for all receipts and despatches by rail and for maintaining the despatch book of all consignments.

23. Jemadar Head Clerk.—The Head Clerk is the confidential clerk of the adjutant and assists him in the administration of the office. He is not permitted to discuss with anyone any matter of a confidential nature which may come to his knowledge through the discharge of his official duties.

He is responsible for the efficiency of the clerks, the working of offices and ensuring that all reports and returns are submitted on required dates.

24. Platoon Commanders.—A Platoon Commander is responsible for his platoon as a company commander is for his company. All Platoon Commanders are J.C.Os. (Subedars/Jemadars) (except in the Signal, M.T. and Mortar platoons, where commanders are officers), and as such they live in close touch with the men and report to their company commander about all happenings in the lines.

Section 4. NON-COMMISSIONED OFFICERS (N.C.Os.)

25. Battalion Havildar-Major (B.H.M.).—He is the senior havildar of the unit and entitled to the greatest respect. He is the assistant of the jemadar-adjutant and performs all "A" duties.

26. Battalion Quartermaster Havildar (B.Q.M.H.). — The B.Q.M.H. is generally the second senior N.C.O. in the battalion and assists the J.Q.M. in the performance of his duties.

27. Other N.C.Os.—In the battalion there are other N.C.Os., Signal, Armourer and Provost Havildars who have well-defined responsibilities and duties.

There are N.C.Os. in each company, similarly performing staff and command duties till it comes to the lowest organization of the unit—the section.

28. Section Commander.—The N.C.O. in command of the section has the definite responsibility of converting all men in his section into skilled soldiers. A Section Commander is all-in-all for his men and performs all staff and command duties directly. He is a jack-of-all-trades and master of his section, a body of 8 to 11 men welded together with ties of comradeship and *esprit de corps*.

PART III

Chapter IX. The Corps of Engineers.

Section 1. General.

Section 2. Command and Control.

Section 3. Engineers in Peace.

Section 4. Military Engineering Service.

Section 5. Engineer Store Organization.

Section 6. Works Procedure in Peace.

Chapter X. The Corps of Signals.

Section 1. General.

Section 2. Methods of Intercommunication.

Section 3. Organization of Signals in the Field.

Section 4. Relationship between Staff and Signals.

CHAPTER IX

THE CORPS OF ENGINEERS

Section 1. GENERAL

1. The Object.—The object of the military Engineers is “to apply engineering skill and resources to the furtherance of the Commander’s plan.” Engineers are a specialized arm and are employed independently or in support of other arms to accomplish such tasks as require engineering skill.

Engineers are responsible for adopting new inventions to military purposes, experiment with them and pass them on to other arms and services. Further development of any invention is carried out under the auspices of the Engineers.

Engineer troops have to perform a variety of tasks, and as such each Engineer unit has a large proportion of tradesmen who, being highly technical, take longer to train.

Engineers, who are generally called Sappers, are an integral part of any force operating in the field. To make good and proper use of their technical ability, all arms must understand:

- (a) The role of the Engineers.
- (b) The tasks that they can perform.
- (c) Their organization.
- (d) The method of their employment.

2. Role of the Engineers.—The role of the Engineers is to help in destroying the enemy by:

- (a) directly participating in battle like infantry (this, however, is a wastage of Engineer manpower and to be employed only in extreme emergency), and
- (b) assisting the fighting troops to get forward to engage the enemy.

For the above roles the Engineer units are located in the front line, on the lines of communications and in the base. Field companies in the front line are not such specialized units as the plant platoons and dock operating companies found on the lines of communications or at the base. It must be clearly understood that every unit is not expected to be expert in all branches of engineering, but generally has a working knowledge of all and is expert in its own line.

3. **Engineer Tasks.**—The tasks that the Engineers perform can be separated under two headings—namely, in peace and in war:

IN WAR

- (a) **Communications.**—Construction, maintenance and operation of the requisites for the movement of troops and stores (excluding the operation of road and air transport).
 - (i) **With forward troops** the task involves the gapping of minefields, demolition of tank traps and obstacles, bridging of rivers and the rafting of troops and vehicles across rivers. It also entails the construction of forward air strips for close support of troops.
 - (ii) **On the line of communications** the tasks are construction of roads, bridges, airfields, docks and railways, and the working of docks, inland water transport (I.W.T.) craft, installations and railways.
 - (iii) **In the rear areas** similar tasks as on the line of communications are carried out with civilian resources and manpower available.
- (b) **Fortifications.**—The construction of works affording protection from the enemy's weapons or constituting obstacles to him, and limited to those tasks that cannot be performed by other arms for their own protection.
 - (i) **With forward troops** this involves the laying of minefield belts, the construction of concrete and other types of weapon emplacements and the construction of large-scale anti-tank obstacles.
 - (ii) **On the line of communications**, line of communication tasks and, in addition, the building of bomb-proof shelters.
 - (iii) **In rear areas**, tasks as on the line of communication if civilian resources are not available.

- (c) **Demolitions.**—The demolition of enemy emplacements, bridges, roads and railways behind the enemy lines to hamper the forward flow of his reinforcements and stores or to delay pursuit in case of withdrawal.
- (d) **Installations.**—The construction, repair, operation and maintenance of installations such as electric power houses, saw-mills or pipe-lines, mainly on the line of communications.
- (e) **Accommodation.**—The construction of all types of camps, Nissen huts and barracks with forward troops, on the line of communications and in the rear areas. The scope of this work depends on the area where it is required.
- (f) **Water-Supply.**—The provision and purification of water is an Engineer responsibility. In forward areas it is limited to pumping with mobile pumps from existing wells and streams, chlorinating and purifying with mobile plant. In rear areas the Engineers bore wells, lay pipe-lines and construct purification plants.
- (g) **Map-making.**—Engineers are responsible for the making, production, reproduction and issue of all types of maps for a theatre of operations.

4. **Organization of Engineers.**—The engineers are organized for the two main functions—war and peace. In the former role the Engineer field formations are employed with other arms, while in the latter role they are more or less static, have a civilian nucleus of officers and men and are employed in rear areas.

The Engineer field units can be further classified according to their roles as:

- (a) **Close Support Engineers.**—The basic unit for co-operation with infantry, armoured or air-borne divisions is the field company. The Divisional Engineers consist of three field companies, each with a headquarters and three platoons, and a field park organized into a headquarters, and a platoon each of workshops and stores, and a field platoon. A field company carries with it necessary variations for the three different types, infantry, armoured or paratroop, sets of field works and tradesmen tools, water supply and demolition equipment, including a proportion of explosives, a compressor with power operated tools and an angle dozer.

The Headquarter platoon of the field park carries the divisional lighting set, divisional reserve of tools, wire, assault river-crossing equipment and mine warfare sets, water supply equipment and four compressors.

The workshop platoon of the field park has a workshop lorry, welding equipment, power saw and specialist tools. The stores platoon carries no specialist equipment but is the organization for running the divisional engineers stores godown.

The field platoon of the field park is similar to the platoon in a field company, but has in addition five angle dozers.

The bridging platoon in the field park has no bridging equipment on establishment, but carries such equipment as ordered by the Commander Divisional Engineers.

- (b) **Line of Communication Engineer Units.**—The line of communication Engineer units are organized into Corps Engineers and Army Engineers. The Corps Engineers consist of three field companies and a field park company less the bridging platoon. There are in addition a bridging and a plant company.

The Army Engineers normally consist of three field companies and a field park and, in addition, a workshop, a park and an electrical and mechanical construction company.

- (c) **Other Types of Engineer Units.**—During operations many other types of specialized Engineer units are employed for particular tasks, such as quarrying, forestry, artisan and bomb disposal companies. The basic organization of all these units is generally analagous to the field company and they carry specialized equipment according to their role.
- (d) **Transportation Units.**—The railway construction, railway workshops, docks operating, fort construction and inland water transport companies are transportation units raised by Engineers to maintain rail and water communications. The basic unit is analogous to the field company and carries specialized equipment according to the role.
- (e) **Survey Units.**—The field survey company, responsible for mapping, is organized on the lines of a field company and carries very specialized equipment for charting, measuring and mapping.

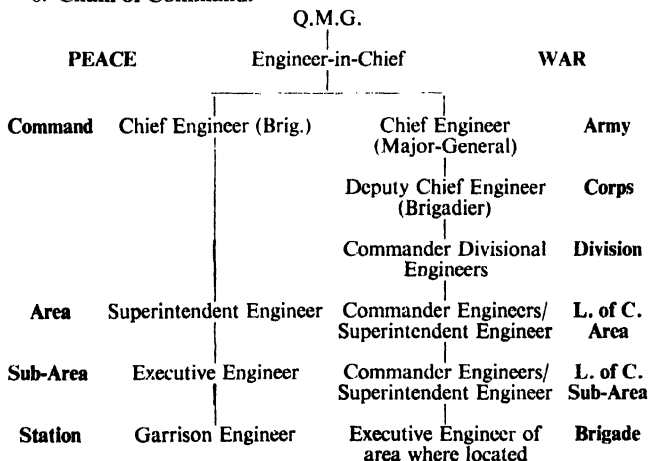
5. The Employment of Engineers.—Though Engineers are trained to fight as infantry, they are best employed in the furtherance of any operational plan, on those tasks for which they have been specially trained. The Engineers can either work or fight; they cannot perform both the tasks simultaneously.

Engineers carry a good deal of special heavy equipment to replace manpower and working parties must therefore be adequately protected. All Engineer works require time for planning, designing, collection of resources and execution. As a result, Engineer works tend to lack flexibility. Sudden changes in the commander's plan will seriously delay the completion of any essential Engineer work.

"G" branch of the formation is responsible for the allotment, while "Q" branch provides the funds and transport necessary to carry men and materials to the required place. There must be very good co-ordination between the commander, staff and Engineers to make the best use of Engineer resources, which are always in short supply. Before any task is allotted to the Engineers, the commander must ask himself, "Can this be done by non-Sappers?" The Sappers should only be called upon when there is no other alternative.

Section 2. COMMAND AND CONTROL

6. Chain of Command.



7. Control of Divisional Engineers in War.—It has been found in practice that the Commander Engineers should have all the field companies under his direct command for works so that they are used when they are most needed at short notice. When necessary, field companies may be affiliated for Engineer works with brigades, but must always remain under the control of Commander Divisional Engineers.

The Commander Divisional Engineers (C.E.) commands all the Divisional Engineer units and is the technical adviser to the divisional commander, who decides what Engineer effort is required. The C.E. advises him about its feasibility, cost and time. Having undertaken an Engineer commitment, it becomes the responsibility of C.E. to place the necessary troops from his own resources or obtain them from higher formations.

Section 3. ENGINEERS IN PEACE

8. Engineer Activity in Peace.—In peace conditions, Engineer activity is mainly confined to two channels—regimental and the Military Engineer Services (M.E.S.). A nucleus of survey and transportation staff, however, exists and remains ready for expansion.

The role of Engineers in peace is to train for war. This includes recruit, basic and collective training and reservist training for a specified period every year.

Territorial arm of Engineers is in process of formation.

National Cadet Corps wings have just been raised.

There are three Engineer centres and a nucleus survey and transportation organization.

The School of Military Engineering trains officers after their pre-commission "All-Arms" training.

Engineer training includes training to deal with communications, bridging, demolition, water supply and field defences.

Specialist units to deal with docks, railways, forests, oil pipeline work are generally recruited during war from civil sources and given military training.

The role of the Military Engineering Service (M.E.S.) in peace is to plan, construct and maintain accommodation and ancillary services for troops. They also plan and construct defences when required. The M.E.S. are also the Engineer construction agency for all works connected with the Air Force and the Navy.

Section 4. MILITARY ENGINEERING SERVICE

9. Organization of the M.E.S. in Peace.—The M.E.S. is a “Q” service controlled by the Engineer-in-Chief. It is divided into three commands and is controlled by Chief Engineers at each command, who are also the advisers to the G.O.C.-in-C. of the Command on all Engineer matters. The Chief Engineer exercises command over Engineer units not belonging to a formation, and under him are garrison engineers and barrack officers.

(a) **Garrison Engineer/Executive Engineer, M.E.S.**—The Garrison Engineer (G.E.) is concerned with the construction and maintenance of structures and fixed internal fittings. Except in cases of minor matters not involving questions of shortage or state of maintenance of accommodation or fixtures in accommodation, the Garrison Engineer normally does not deal with troops in matters of accommodation.

(b) **Barrack Officers.**—The Barrack Officer is under the Chief Engineer and independent of the Garrison Engineer. His duties include:

- (i) Custody of vacant accommodation.
- (ii) Handing over of accommodation to units as allotted by station commander.
- (iii) The supply of furniture and raising of debits for rent of accommodation, water, electricity and furniture.

The position of the Garrison Engineer and Barrack Officer is analagous to the landlord and house agent respectively.

10. Administrative Control of the M.E.S. in Peace.—Whilst in war, it has to be considered whether a work can be performed in time with the labour and materials available, the governing factor in peace is whether the work can be executed within the funds provided in the budget or allotment in case of lower formations.

In peace budgets, only larger projects (in the case of M.E.S., works costing over one lakh) are specified and for smaller projects bulk allotments are made.

Administrative control is exercised by the Quartermaster-General at Army Headquarters and “Q” staff at formations and commands. These officers verify that the items of works suggested are

- (a) inescapable,
- (b) in accordance with current government policy,

- (c) in accordance with scales, and
- (d) in order of priority suggested.

After administrative approval has been given by the staff the work is carried out by contract, let out by competitive tenders subject to rules of the Government. Smaller works are ordered on the "Term" contractor, who contracts for specified items of work for a specified area and for a specified period. A small number of tradesmen are employed by the garrison engineer to cope with emergencies and routine minor maintenance.

11. M.E.S. in War.—The works service is responsible for the construction and repair of:

- (a) buildings, camps and installations—*e.g.*, bases, head-quarter offices, workshops, stores, etc.;
- (b) roads, bridges and railways;
- (c) airfields and works services for the Navy;
- (d) rehabilitation and production of Engineer effort useful to further the war effort, forestry, electricity and power transmission; and
- (e) works in connection with the transportation services. (In war, transportation services will be an independent "Q" service, but the final technical control will rest with the Chief Engineer of the force concerned.)

Section 5. ENGINEER STORE ORGANIZATION

12. General.—Engineer stores include material and plant other than unit equipment required for engineering work of all kinds, whether carried by Engineers or other arms. The responsibility for provision of storage and supply is as below:

- (a) Engineer stores of Engineer provision are provided, stored and supplied by them;
- (b) Engineer stores of ordnance origin are provided and supplied by Ordnance; and
- (c) items on the war or peace equipment tables of units are supplied by Ordnance.

13. Engineer stores are either manufactured, imported or purchased locally. In peace they are stored in Engineer stores depots; in war in Engineer stores base depots or advance base Engineer

store depots. Units in a division requiring Engineer stores demand on their affiliated field companies or Command divisional Engineers. The stores are issued from holdings in the stores platoon of the field park company, which in turn is reimbursed from Engineer parks or advance parks operated by park companies. In any mobile operation, a considerable tonnage of Engineer stores is required to construct forward airfields, roads and bridges, pipe-lines and advance bases. Local production should be exploited to the maximum and Engineers must be in the full picture of the "G" plan of operations.

Transport for Engineer stores in war is a "Q" responsibility. It is normal to affiliate transport companies and employ them solely on Engineer works for hauling stores.

Section 6. WORKS PROCEDURE IN PEACE

14. In peace it is necessary to control expenditure within the budgetary limits laid down. Money is made available for expenditure by appropriation, which represents the allotment of a particular sum of money to meet expenditure on a specified object. For financial reasons, the works to be executed by M.E.S. are divided into two categories:

- (a) Original works, which comprise new works, additions, and alterations for administrative reasons.
- (b) Repair works, which embrace all expenditure on renewals, replacements and alterations necessitated by technical or engineer reasons.

15. **Original Works.**—Before an original project is sanctioned it has to go through the following stages:

- (a) **Acceptance of necessity**—means the concurrence of competent financial authority (C.F.A.) to the proposed expenditure as follows:

Government of India	..	..	Full powers
G.O.C.-in-C.	..	..	Rs20,000
District/Area Commander	..		Rs5,000
Brigade Group/Sub-Area Commander	..	..	Rs2,500
Station Commander	..	..	Rs1,000

- (b) **Administrative approval**—means sanction by competent financial authority to the execution of an original work at a stated cost as below:

Government of India	..	..	Full powers
G.O.C.-in-C.	..	..	Rs1,00,000
District/Area Commander	..		Rs5,000
Brigade Group/Sub-Area Commander	..	..	Rs2,500
Station Commander	..	..	Rs1,000

- (c) **Appropriation of funds**—means the allotment of a particular sum of money to meet expenditure on a specified work.
- (d) **Technical sanction**—means approval by the Engineers of the project from a technical point of view. It means that it is structurally sound and estimates are accurate.

16. **Repair Works.**—No administrative approval is necessary for the execution of repair works as an allotment for the purpose is made in the budget. The works are classified in two categories:

- (a) **Ordinary repairs**—replacement and renewals up to Rs20,000 inclusive.
- (b) **Abnormal repairs**—replacement and renewals costing more than Rs20,000.

17. In the case of abnormal repairs costing over Rs20,000, estimates will be prepared for each project and sanctioned by competent engineer authority.

18. **Operational Works.**—In circumstances when it is not possible or expedient to go through normal procedure for peace-time, it may become imperative to sanction projects as operational works. In operational areas this power vests with local commanders who, depending on the urgency of the works, order the local Engineer commanders to undertake the task. The sanctioning authority must inform the appropriate competent authority with cogent reasons for deviating from normal work procedure.

19. **Minor Works.**—To facilitate quick execution, original works are divided into the following categories:

- (a) **Major original works**, costing more than Rs20,000 for which normal works procedure is to be followed.

- (b) Minor original works, costing up to Rs20,000 inclusive, which may be sanctioned by the competent sanctioning authority to whom such powers may be delegated.**

20. Works which involve a change in authorized scales cannot be executed under the head "Minor Works." Projects should not be split to bring them within the powers of the sanctioning authority. Before minor works are sanctioned, it is necessary for the sanctioning authority to ensure that

- (a) the task is inescapable,
- (b) the funds are available,
- (c) the project is in accordance with government policy,
- (d) the specimens are according to schedule, and
- (e) the work is in proper order of priority.

CHAPTER X

THE CORPS OF SIGNALS

Section 1. GENERAL

1. **Introduction.** Signal communications are the medium by which command is exercised and intelligence is transmitted. It is, therefore, an essential element of command, and an efficient system of intercommunication is essential to the success of any military operation.

2. It is therefore important that all officers know

- (a) The functions of Signals in the army,
- (b) The various means of intercommunication, their uses and limitations, and
- (c) The responsibility for provision of the signal communication system in the field.

3. **Functions.** -- The functions of Signals in the army are as follows:

- (a) **Intercommunication.** -- The Signal intercommunication system enables a commander to—
 - (i) Control and administer the different and often widely separated parts of his command.
 - (ii) Keep in touch with the situation on his own front and the fronts of flanking formations.
 - (iii) Transmit his demands for air support.
 - (iv) Keep in touch with other commanders with whom he is co-operating by land, sea and air.
- (b) **Interception.** — The Signal interception system deals mainly with the interception of enemy wireless transmissions. These, on examination by intelligence personnel, may reveal information regarding the enemy's strength, dispositions and intentions.

- (c) **Counter-intelligence.**—The Signal counter-intelligence system attempts to deceive the enemy's signal interception system by means of wireless silence, false transmission and control of abnormal variations in wireless traffic preceding an operation.

4. **Requirements of a Signal System.**—The requirements of an efficient Signal intercommunication system are as follows:

- (a) **Reliability.**—No one method of intercommunication alone is reliable as each has its advantages and disadvantages. A judicious co-ordination of all available methods is therefore essential to obtain reliability in varying situations.
- (b) **Speed.**—The system is of NO use unless the intelligence transmitted through its medium arrives in time to be of value.
- (c) **Simplicity.**—Complex systems of communications, although suitable for static layouts, are liable to break down under the strain of mobile operations. The system must therefore be as simple as is compatible with the requirements of speed, security and reliability.
- (d) **Flexibility.**—The system must be such that new demands occasioned by changes in the situation can be met quickly and without confusion.
- (e) **Security.**—The system must include means of intercommunication which the enemy cannot intercept.
- (f) **Economy.**—In war, the resources of trained technical personnel for operating and maintenance of the system, and the resources of technical equipment, will of necessity be subject to serious limitations. The system must therefore be economical in manpower and equipment.

Section 2. METHODS OF INTERCOMMUNICATION

5. **Method.**—The means of intercommunication in the field are as follows:

- (a) **Line Telegraphy and Telephony (L/T).**—Line communications are used whenever they can be constructed and maintained. They form the backbone of the signal system. They are of little or no value for mobile troops in a fast-moving operation. The advantages are that transmission

of messages is both rapid and accurate, that the system can handle a large volume of message traffic, and that line transmissions are NOT easily subject to enemy interception. The disadvantages are that line communications take time to establish, are vulnerable to artillery and air bombardment and are NOT flexible. The main items of equipment are the fullerphone for telegraphy and the telephone.

- (b) **Wireless Telegraphy and Radio Telephony (W/T and R/T).**—Wireless is invaluable for working with mobile troops and aircraft. Its ability to maintain communications on the move makes it the principal medium of control in mobile formations. Its advantages are that communications can be rapidly established, that it is portable and can work on the move. The disadvantages are that wireless transmissions are easily intercepted by the enemy, that communication is liable to be affected by atmospheric and weather conditions, and skilled personnel are required for the maintenance of wireless equipment. Wireless sets vary in size and performance, dependent on the role for which they are designed.
- (c) **Visual telegraphy (V/T).**—This is little used in modern warfare. It is of use in hilly country. The apparatus is simple and is limited by obstacles in the optical path and by the weather. Furthermore, signals are liable to interception. The main types of equipment used are flag, lamp, helio, and shutter.
- (d) **Message Carrying.**—This is the most ancient method of intercommunication and, under certain conditions, the most reliable. Large numbers of messages, bulky packages, maps and sketches may be sent by this means with accuracy and security. But the system is slow over long distances and is liable to be affected by weather and terrain. Means for message carrying are numerous and include foot orderlies, motor-cycle riders, carrier pigeons, etc.

6. **Responsibility.**—The Corps of Signals provides the means of intercommunications, other than postal, for an army in the field down to the headquarters of regiments, battalions and batteries. The establishment of each formation includes a unit of the Corps of Signals to provide the intercommunication required by the

formation commander. Artillery regiments have signal sections which, though generally attached to divisional signals, are independent units. In addition to the Corps of Signals organization, regiments, batteries and infantry battalions have unit signallers on their establishment who provide intercommunication within these units.

7. The higher formation is responsible for the provision and maintenance of communications to the headquarters of the next lower formation or unit.

Section 3. ORGANIZATION OF SIGNALS IN THE FIELD

8. **Infantry Battalion Signal Platoon.**—The Signal Platoon of the infantry battalion is responsible for the provision of line and wireless communication from battalion to company headquarters. The wireless sets used are infantry pack sets which are conveniently carried on a man's back. A smaller pack set is used for communication between company and platoon headquarters. A wireless detachment from the brigade signal section operates the battalion rear wireless link from battalion to brigade headquarters.

9. **Infantry Brigade Signal Section.**—The Brigade Signal Section, which is a Corps of Signals unit, is responsible for the provision of the line and wireless communications to the battalions of the brigade. It also provides the brigade terminals of the rear wireless links to division headquarters. The Brigade Signal Section is responsible for the monthly inspection and first echelon maintenance of the signal equipment of the battalions in the brigade.

10. **Field Regiment Signal Section.**—This is also a Corps of Signals unit, smaller than the Brigade Signal Section. It is responsible for the provision of line communications to batteries and the control terminal of the rear link to the commander artillery at divisional headquarters. The section is responsible for the monthly inspection and first echelon maintenance of the signal equipment of the batteries in the regiment.

11. **Infantry Divisional Signal Regiment.**—The Infantry Divisional Signal Regiment has three communication companies. No. 1 Company provides communications down to infantry brigades and the armoured regiment, and within the divisional headquarters. It also provides wireless communications to divisional administrative units on a pool basis. No. 2 Company provides communications

for headquarter divisional artillery and down to field, anti-tank and light anti-aircraft regiment signal sections. No. 3 Company provides communications for the divisional engineer group down to headquarters of field companies and field park companies. The officer commanding the infantry divisional signal regiment is the Commander Signals at divisional headquarters and is responsible for the technical supervision of all signal communications within the division and the supervision of training of signallers of all arms.

Section 4. RELATIONSHIP BETWEEN STAFF AND SIGNALS

12. Since signal communications are the medium through which command is exercised and intelligence is transmitted, the supervision and direction of the means of communication provided by signals is the responsibility of the General Staff. In operations, intercommunications can seldom be adequate. Therefore, the staff must understand their organization and limitations and plan accordingly.

13. In the wide dispersion of modern war the difficulties of intercommunication in battle are greatly enhanced. The closest touch is necessary between officers of the "G" Branch and signal officers. Effective signal arrangements can be made only when the signal officer at a headquarters is given the earliest possible information of projected operations and moves. It is essential for the signal officer to be at all times completely in the picture not only as regards the present state of operations, but also as regards future possible developments.

14. The details for an attack are dependent to a large extent on the communications that can be provided. Therefore the signal officer must be consulted when initial planning takes place. He would be in a position to say whether, and to what extent, requisite communications could be made available.

15. If operationally feasible, the splitting of headquarters and wide dispersion of units must be avoided. The capability of signal units to provide communications is limited by their establishment of personnel and equipment. Any commitments beyond that for which they have been designed will impose a strain on their resources and may eventually result in a breakdown of communications.

16. The signal officer must keep his commander informed of the state of his resources and make recommendations accordingly to alter the communication layout.

17. Signal units must be given opportunities for frequent collective exercises to practise the intercommunication set up in various types of operations. Staff officers must establish skeleton headquarters during signal exercises in order to familiarize themselves with the intercommunication system, and in order to practise radio telephony and message-writing procedure.

18. Frequent visits by non-signal officers to local signal offices and telephone exchanges must be encouraged. Much of the lack of tolerance for communication delays and failures is due to an ignorance of the difficulties and problems involved. Such visits would help to create a sympathetic attitude towards these difficulties.

PART IV

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CHAPTER XI

ADMINISTRATION AND ADMINISTRATIVE SERVICES

Section 1. PRINCIPLES OF ADMINISTRATION

1. **Definitions.**—Administration is the process by which an organization is kept alive and its components oiled and co-ordinated to function like parts of a machine, working smoothly to achieve the objectives outlined.

It has two main aspects:

- (a) **Personnel Administration.**—Deals mainly with the problems of personnel of the different types and various grades of persons employed in the army. These functions are performed mainly by “A” staff at headquarters and “A” services.

Administration can be further subdivided into:

- (i) *General Administration.*—Formulation and administration of major administrative policy throughout the theatre of operations.
- (ii) *Local Administration.*—Execution of the administrative policy as it affects a particular arm, unit or service.
- (b) **Maintenance.**—Deals mainly with the supply of various types of materials and sinews of war and their movement from the sources of supply to consumers by different ways and means. The functions are performed by “Q” staff at a headquarters and “Q” services.

2. **Principles.**—Like principles of war, there are the following fundamental principles for administration, which are not hard

and fast nor applicable in all circumstances but should be intelligently applied to suit the particular situation:

- (a) **Foresight.**—To make adequate arrangements it is necessary to forecast the future possible requirements, keeping in view the strategic and tactical situation. Administration must plan well ahead of time for future operations. It should never be caught on the wrong foot.
- (b) **Economy.**—Men and material for war can never be sufficient, and still less will the means for transportation and the time to move them be adequate. Good administration means accurate planning and exact location of troops and resources. Under-insurance is as dangerous as over-insurance and both must be avoided.
- (c) **Elasticity.**—Administrative arrangements must be elastic so that changes can be carried out to suit the changing situations of war. Administrative arrangements are so split as to place reserves in forward and rear areas in such a way that switching over can be done from the rear when required.
- (d) **Simplicity.**—Complicated arrangements, particularly movements on precarious lines of communication in forward areas, may not work according to plan. Administrative arrangements must be good and plans simple.
- (e) **Co-operation.**—Accomplishment of any administrative task depends on the combined efforts of many branches and services. It is, therefore, absolutely essential that there should be very good understanding between all heads of branches and services, and they must be kept in the full picture so that they can give of their best.
- (f) **Accuracy.**—All mathematical calculations must be accurate. While counting figures it is necessary to keep in mind the fluctuating fortunes of war and the percentage of risk must be included in the calculations. Proper statistics must be maintained and kept up to date.

3. **The Application of the Principles.**—The principles are only to be used as guides and interpreted intelligently. The following facts affect their application:

- (a) **The Enemy.**—All administrative plans must take the characteristics of the enemy into consideration.

- (b) **Own Troops.**—The organization and resources available to carry out the administrative plans should be fully considered.
- (c) **Ground.**—Particularly the lines of communication for movement of large quantities of men and material.
- (d) **Local Resources.**—Where available to assist administration.
- (e) **Time and Space.**—The time for carrying out the plan and the distances to be covered.
- (f) **Climate and Weather.**—May affect stocking of particular types of stores and equipment.

Section 2. ADMINISTRATIVE STAFF

4. **General.**—Administration is carried out by the “A” and “Q” staff officers through the medium of the services, who are the suppliers of particular commodities and specialists in their branch of the services.

The heads of the services are advisers to the commander and the staff. All administrative staff officers must be fully conversant with the problems of the service heads, their capabilities and limitations of the services under their charge.

Administrative staff and services must always work hard to improve co-operation and must never be separated into watertight compartments. The staff must keep the services in the picture, while the latter in turn must keep the staff informed about the practicability of their schemes and plans.

(a) **“A” and “Q” Staff.**—The main divisions of the administrative staff are:

- (i) **“A” Branch**—which deals with personnel.
- (ii) **“Q” Branch**—which deals with maintenance.

At higher headquarters each branch is divided into many sections, each with its own charter but, as we go down the ladder, the branches are amalgamated and responsibilities carried out by one and the same person as illustrated in the chart on page 101.

6. The main tasks of the “A” and “Q” staff are as follows:
- (a) Future planning in co-operation with “G” branch;
 - (b) provision of men and material at the right time and place;
 - (c) moves of men and material; and
 - (d) maintenance.

7. To carry out tasks as outlined in para. 6 above, the administrative staff must have foresight and plan well ahead. Time must be allowed for executive action to be taken.

An administration representative must attend all "G" conferences and give necessary advice after consultation with service advisers.

8. Channels of Communications.—For administrative control there are the following three channels of communications:

- (a) On purely departmental matters, service head deals direct with the service representatives at higher and lower formations. Copies of correspondence which affect general policy are endorsed to the staff.
- (b) On matters of command and policy, the service heads give the necessary advice information to the commander/staff. The staff, while taking up the matter with higher or lower formation, endorses a copy to the service head concerned, for information.
- (c) On departmental matters service units deal directly with service representatives of the next higher formation headquarters, while on all other matters they must deal through the local commander.

The channels of communication between commander, staff and his heads of the services are shown diagrammatically on page 101. For major decisions, it may be necessary to confide in all heads of branches and services regarding a projected plan.

9. Administrative Planning.—No operation can be carried out without first ensuring that the services can fulfil the requirements, and the following data must be available before an administrative appreciation for a tactical operation can be made:

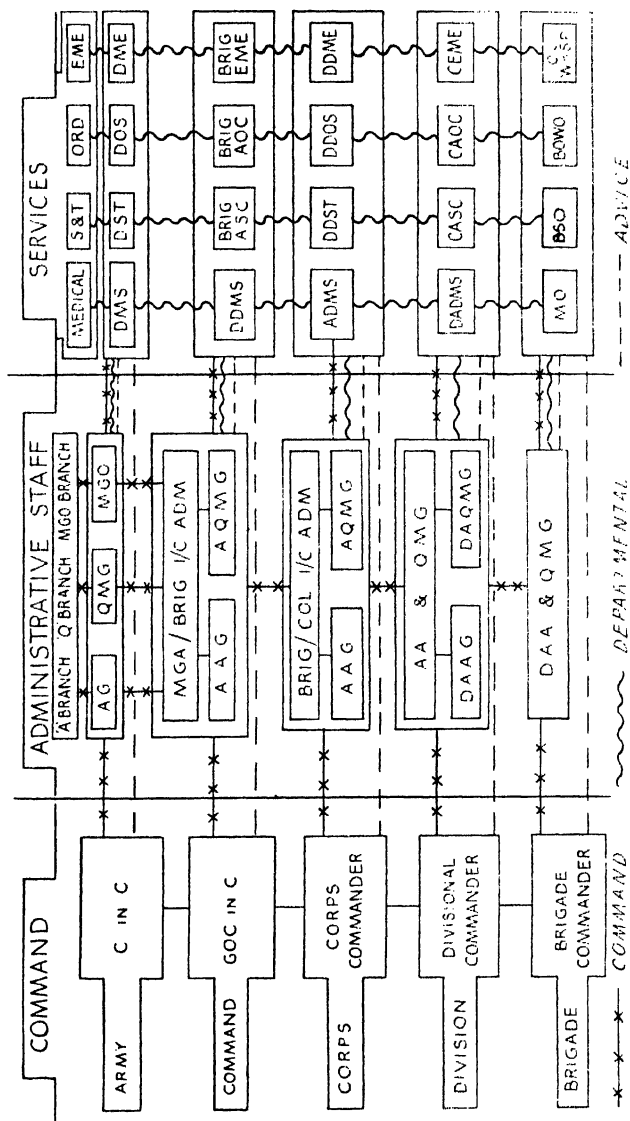
(a) **Outline Plan of Operations.**

- (i) Aim.
- (ii) Composition of the force.
- (iii) Possible grouping of units.
- (iv) Time and distances involved.
- (v) Percentage of wastages expected.

(b) **"G" Appreciation.**

- (i) Probable enemy action.
- (ii) Probable locations and timings.
- (iii) Security of communications.
- (iv) Forecast of requirements.
- (v) Priorities.

Channels of Communications for Administration Purposes



(c) Stocks.

- (i) Holdings of various kinds of stores with the formation, next higher formation and the units.
- (ii) Local resources.
- (iii) Expected wastages and possibilities of replacements.
- (iv) Replenishment procedure.

(d) Transport.

- (i) Availability by types.
- (ii) Lift of each type.
- (iii) Turn-rounds.

(e) Communications.

- (i) State.
- (ii) Capacity.
- (iii) Ability to stand necessary traffic.
- (iv) Weather conditions.

(f) Inter-communication.

- (i) Facilities.
- (ii) Reliability.

10. Administrative Reconnaissance.—Most of the above information, being of routine nature, will be available with “A” and “Q” staffs. All administration staff officers must maintain up-to-date information and supplement it by detailed local reconnaissance.

11. The administrative staff officers must study and know the area of operations thoroughly by studying maps, photos and other reports. They must concentrate attention on the following points:

- (a) State of communications.
- (b) Bottlenecks and diversions.
- (c) Availability of water.
- (d) Local resources.
- (e) Areas for camps, installations and depots.

12. For siting administrative installations, reconnaissance and siting boards are detailed by the higher formation, with service, medical and engineer representatives. These boards are generally presided over by a senior staff officer from the convening headquarters.

13. In operations when it is not possible to carry out a detailed reconnaissance and planned siting, the functions are generally performed by an *ad hoc* committee detailed by the formation

concerned, consisting of three officers, one of whom is generally the head of the service concerned and the other a medical officer.

14. In tactical moves, the advance elements of the force generally have an administrative element, known as the colour party, for administrative reconnaissance. When moving into new areas where advance reconnaissance is not possible, the colour parties carry out these duties according to the time available. The selection of colour parties is very important, and their responsibilities are always laid down in Standing Orders and normally consist of:

Commander: A senior officer detailed by formation, generally the second senior "Q" officer.

Members: Technical representative(s).
Formation representative(s) (generally second-in-command).

Section 3. ADMINISTRATIVE APPRECIATIONS

15. **The Form.**—An administrative appreciation is made to examine the various ways and means by which the force can be maintained during the operations envisaged by "G." All administrative difficulties in the fulfilment of the task must be appreciated and ways devised for overcoming them. "G" plans should not be changed, unless absolutely necessary, to suit administration details.

The form of an administrative appreciation is similar to a "G" appreciation and has the following main headings:

- (a) The aim.
- (b) Considerations or factors.
- (c) Courses open to self and enemy.
- (d) Plan.

16. **The Aim.**—The aim of an administrative appreciation will generally be the maintenance of a force during a given operation or for some specified period.

The object must be clearly enunciated at the start and should be in consonance with the "G" intention, so that all limitations are properly considered and surmounted.

17. **Considerations or Factors.**—The factors must be considered in the order of their importance and deductions should be made for each factor considered.

All calculations must be based on war establishments and NOT on present strengths, and given separately in an appendix with the appreciation.

18. The main factors which may affect administrative appreciation are:

- (a) **Communications** (road, rail, river, sea and air).
 - (i) State of communications.
 - (ii) Possibilities of development.
 - (iii) Facilities for development.
 - (iv) Availability of material, labour, transport, finance.
 - (v) Alternative routes: Bottle-necks, diversions, bridges, fords.
 - (vi) Traffic: Capacity, circuits, turn-rounds, halting places, watering places, crossing places.
 - (vii) Restrictions: Enemy action, landslides, weather limitations, refugees.
- (b) **Water.**
 - (i) Location of water sources.
 - (ii) Capacity.
 - (iii) Equipment to lift water.
 - (iv) Means to carry water.
 - (v) Water ration.
 - (vi) Reserve supplies to be carried.
 - (vii) Chlorination.
 - (viii) Avoidance of contamination.
- (c) **Transport** (rail, road, river, sea and air).
 - (i) Availability and requirement.
 - (ii) Condition: Classification by percentages, on and off road vehicles.
 - (iii) Capacity: Load carrying, troop carrying.
 - (iv) Type: Animal transport, mechanical transport, railways by gauges, inland water transport by types, passenger and cargo ships, aeroplanes.
 - (v) Reserves on wheels and on ground.
 - (vi) Organization: Control and allocation of transport; routing of convoys; recovery, replacement and repairs; reserve transport.
- (d) **Supplies.**
 - (i) Requirements: Types, quantities, periods, places.
 - (ii) Availability: Own dumps, rear depots, captured stocks, local purchase.

- (iii) Method of supply of authorized items, extra issues, medical comforts, amenity stores, canteen goods.
- (iv) Arrangements for supplying allies, prisoners of war, refugees, civilians.
- (v) Organization: Maintenance set-up, reserves to be held in forward areas, priority of movement.

(e) Locations.

- (i) Road-head: Availability, suitability, capacity and alternatives.
- (ii) Rail-head: Availability, suitability, capacity and alternatives.
- (iii) Harbours: Wharves, cranes and labour.
- (iv) Depots: Communication, covered space.
- (v) Airfields: Location, capacity and condition.
- (vi) Forward maintenance areas: Location, capacity, dispersion and internal communications.

(f) Medical.

- (i) Medical requirements.
- (ii) Medical cover.
- (iii) Climate.
- (iv) Endemic diseases.
- (v) Precautions and prevention of diseases.
- (vi) Sanitation and hygiene.
- (vii) Evacuation of casualties.
- (viii) Gas and atomic reactions.

(g) Electric and Mechanical Engineers.

- (i) Repair requirements.
- (ii) Repair facilities.
- (iii) Repair cover.
- (iv) Spare parts, equipment and stores.
- (v) Evacuation.

(h) Engineers.

- (i) Requirements: Minor works, major works, operational tasks.
- (ii) Engineer Resources: Field engineers, military engineering service, local engineer agencies (the civil public works department), labour, engineer stores.

(i) Ordnance.

- (i) Requirements: Arms, ammunition, clothing, equipment, vehicles.

- (ii) Location of depots.
- (iii) Maintenance stocks.
- (iv) Percentage of wastages and replacements.
- (v) Recovery and repair.
- (j) **Inter-communication.**
 - (i) Minimum requirements.
 - (ii) Extra requirements.
 - (iii) Resources available.
 - (iv) Allotments.
 - (v) Location of headquarters.
- (k) **Traffic Control.**
 - (i) Organization.
 - (ii) Routing.
 - (iii) Restrictions.
 - (iv) Sign-posting.
 - (v) Policy.
 - (vi) Requirements of traffic control posts.
 - (vii) Availability of military police and local sentries.
 - (viii) Intercommunication.
 - (ix) Arrangements for prisoners of war and refugees.
- (l) **Reinforcements.**
 - (i) Location of camps.
 - (ii) Holdings.
 - (iii) Reception, accommodation and distribution.
- (m) **Prisoners of War.**
 - (i) Location of cages.
 - (ii) Holding capacity of cages for officers, other ranks and sick or wounded.
 - (iii) Security arrangements.
 - (iv) Evacuation.

19. Courses Open.

- (a) **To Own Troops.**—Alternative means for maintenance; administrative risks of each course; improvisations.
- (b) **To Enemy.**—Possible action.

20. **Plan.**—The plan must be in sufficient detail so that staff can give detailed orders. Alternative plans should be as simple and flexible as possible. All administrative plans have to be on the "safe side," and under-insurance must be avoided by placing sufficient reserves at correct places.

Section 4. ADMINISTRATIVE ORDERS AND INSTRUCTIONS

21. Procedure.—Every Operation Order (O.O.) has an administrative paragraph which varies in size according to the operation contemplated and force to be employed. In lower formations the administrative details are given totally in the administrative paragraph, while in higher formations—i.e., divisions and above—Administrative Orders/Instructions are issued to amplify the outlines given in the administrative paragraph of the operation order.

The drill is as follows:

- (a) The senior "A" and "Q" officer is responsible for the production of the order. In the division, he is the A.A. & Q.M.G. He must ensure that orders are accurate in detail and prepared and issued in time.
- (b) The A.A. & Q.M.G. (or senior "A" and "Q" officer) attends the planning conference where "G" intentions are discussed and plans outlined.
- (c) A.A. & Q.M.G. takes notes of relevant paragraphs and records if there are any special requirements.
- (d) A.A. & Q.M.G. checks his notes with the Administrative Orders/Instructions issued by higher formations and consults his opposite number at higher headquarters.
- (e) A.A. & Q.M.G., in consultation with his "A" and "Q" staff officers, prepares his administrative appreciation and an outline plan.
- (f) A.A. & Q.M.G. holds an administrative conference attended by his principal "A" and "Q" staff officers and heads of the services. The "G" intention, plan and "A" and "Q" appreciation and outline plan are explained and discussed.
- (g) Reconnaissance parties are detailed who submit reconnaissance reports to the D.A.A.G. and D.A.Q.M.G. respectively.
- (h) D.A.A.G. and D.A.Q.M.G., in consultation with the respective heads of services, prepare the appropriate paragraphs and hand them to A.A. & Q.M.G.
- (i) A.A. & Q.M.G. writes the administrative policy paragraph and checks the other paragraph in relation to it.
- (j) A.A. & Q.M.G. passes the approved draft to D.A.A.G./D.A.Q.M.G. for final checking and issue.

- (k) Administrative Orders/Instructions are signed by A.A. & Q.M.G. or, in his absence, by D.A.A.G./D.A.Q.M.G. for him and issued to all concerned.

22. To produce and issue Administrative Orders/Instructions it is essential that

- (a) there should be close liaison between the "G" and administration branches;
- (b) senior administrative officer is in the closest confidence of the commander;
- (c) "A" and "Q" staff have foresight and keep planning ahead;
- (d) all administrative details are readily available with the various heads of branches and services; and
- (e) the intercommunication is good and sufficient.

23. The form of the Administrative Order follows the same sequence as an Operation Order (O.O.) except that, instead of the "Intention," "Administrative Policy" heading is inserted, which gives the general policy of administration for the particular operation.

24. The form of a divisional Administration Order is shown on page 109 and has the following main headings:

- (a) **Information.**—This may be given under two headings of "Enemy" and "Own Troops." Only such information as affects the administration policy and plan should be included.
- (b) **Administrative Policy.**—The object of the order, the general administrative policy during the operations and any special points must be given here.
- (c) **Method.**—A statement giving full details of administrative arrangements under appropriate headings, to implement the administrative policy.
- (d) **Intercommunication.** — Location of headquarters and intercommunication channels between commander/staff/services.
- (e) **Acknowledgment.**—All Administrative Orders must be acknowledged and all acknowledgments checked to ensure that orders have been received by the addressee.

SECRET

19 Div Adm Order No 4

1/43/Q.
Copy No 12
12 Apr 50

Refers to 19 Div 00 No 2 of 10 Apr. 50
Ref 1" to 1 mile map sheet 44 f/3

INF.

- 1 **Enemy**—(only such inf. as would affect the adm plan)
- 2 **Own troops**—(tactical plan of op in enough detail for adm units to carry out their role)

ADMINISTRATIVE POLICY

- 3 **General policy**—('G' intention and adm limitations)
- 4 **Maintenance policy**—(Amounts of stocks to be carried by units, on wheels or on ground)

METHOD

- 5 **Transport**—(all 'B' echelons will . . .)
- 6 **Supplies**—(3 days' dry ration on mules . . .)
- 7 **Ammunition**—(2nd line lifts to be dumped at NONAME 456987)

INTERCOMN

- 8 **HQs**—(tac HQ at MANOWALI 687467 till 20 Apr 50)
- 9 **Wireless**—(wireless silence till 17 Apr 50. Frequencies ——)

ACK

Time of signature 1315 hours
Time issued to sigs 1320 hours
Method of issue SOS
Distribution list 'A'

(Signature of or for)
(Rank of officer signing)
AA & QMG
19 Div
tel: 66

SECRET

25. All formations must have the standing orders for peace and war, laying down such details as are of a common nature and references which can be quoted in Administrative Orders to avoid repetition. The standing orders must be kept amended according to changes in governmental or higher command policy.

Administrative Orders must receive wide distribution so that everyone receives a copy. For security, it may be necessary to restrict distribution and at the same time ensure that no one is left out. A copy is sent to the higher formation.

26. **Administrative Instructions.**—During operations it may not be always possible to issue comprehensive Administrative Orders

and the details may be issued in the form of an Administrative Instruction giving the following information:

- (a) Forecast of administrative requirements.
- (b) Initial administration layout.
- (c) Policy regarding transport.
- (d) Policy regarding issue and replacement of supplies, ammunition, reinforcements and vehicles.
- (e) Location of depots and installations.
- (f) Allotment of resources.
- (g) Priorities of movement.

Section 5. ADMINISTRATION UNITS

27. Administration Units.—To carry out the function of administration and maintenance, there are the following administrative corps/services whose functions are dealt with in detail in later chapters:

- (a) Corps of Military Police.
- (b) Army Service Corps.
- (c) Army Medical Services.
- (d) Army Ordnance Corps.
- (e) Corps of Electrical and Mechanical Engineers.
- (f) Army Pioneer Corps.
- (g) Army Remounts, Veterinary and Farms Corps.
- (h) Army Postal Service.
- (i) Army Canteen Service.

28. Command of Administrative Units.—Administrative units in the field are controlled by the heads of services themselves and NOT by "A" or "Q" staff of the formation.

The commander issues orders, through his staff, to the head of the service concerned and the latter issues executive orders to the units under his command.

CHAPTER XII

THE CORPS OF MILITARY POLICE

"The Provost must have a horse allowed him and some soldiers to attend him and all the rest commanded to obey and assist, or else the SERVICE will suffer; for he is but one man and must correct many and therefore he can NOT be beloved.

"And he must be riding from one Garrison to another, to see the SOLDIERS do NOT outrage NOR scathe the country."

CHARLES I IN 1629.

1. **Charter of Responsibilities.**—The Provost services have, in addition to their police duties for which they are primarily meant, to carry out duties of traffic control and prevention of crime. Therefore, though an "A" service, the Provost has to do a great deal of work in the field which is directly connected with the other branches—"G" and "Q." It is, therefore, essential that the Provost officer with the headquarters of the formation should be allowed direct access to all branches of the staff.

The duties of the Provost are as follows:

- (a) **Preservation of Discipline.**—General supervision of troops outside unit lines. Prevention of looting, establishment of anti-vice squads, apprehension of deserters or absentees and checking of turn-out and behaviour of troops, and to patrol "out of bounds" areas.
- (b) **Prevention of Crime.**—Maintain contact with civil police to keep track of criminals and crime dens. To carry out preliminary investigations after registration of certain military and civil offences except murder, suicide, rape, theft, bribery or corruption. To carry out occasional and surprise checks in units and installations to stop pilfering and black-marketing in War Department (W.D.) property.

- (c) **Co-operation with other Security Agencies.**—Provost must keep intimate contact with the civil police and field security section to carry out the above roles. It carries out raids and searches with the co-operation of the civil police on information supplied by Field Security and Special Investigation Branch (S.I.B.).
- (d) **Traffic Control.**—Reconnaissance and sign-posting of headquarter routes, bridges and towns. To post traffic police to control military, refugees and other traffic. To establish check posts for stragglers and information posts for traffic. Check convoy discipline and impound unattended military vehicles.
- (e) **Prisoners-of-War Control.**—Provost is only responsible for handling prisoners of war up to but NOT including prisoners-of-war camps. They are responsible for cages and for transit of prisoners as far back as Army prisoners-of-war cages.
- (f) **Escorting.**—To provide escorts for higher commanders and very important persons (V.I.P.).
- (g) **Water-point Duties.**—To enforce water discipline and control traffic at the water points.
- (h) **Railway Station Duties.**—To ensure discipline on the platform. Check military personnel detraining and entraining.

2. Organization.

- (a) The Corps of Military Police (C.M.P.) was organized in India in 1942. All the personnel are volunteers and specially selected and do a course at the Corps of Military Police centre.
- (b) The Director of Personal Services, at Army Headquarters, is the head of the Provost services in India and is also the *ex officio* Provost Marshal.
- (c) At each Command headquarters there is a Deputy Provost Marshal with the rank of Lieutenant-Colonel.
- (d) Field formations—viz., Corps and Division—have an Assistant Provost Marshal (Major) who is an adviser on all matters affecting Provost and traffic control. (He has no executive authority or command over the individual Provost units.)

The Assistant Provost Marshal is responsible for traffic

control and submits the traffic control plan based on the divisional commander's general plan for approval to G.S.O.I or A.A. & Q.M.G. as the case may be. He should, therefore be located at divisional main headquarters.

- (e) In brigades the Provost duties are carried out by a junior commissioned officer, who is advised by the Staff Captain "A." Provost sections from the divisional Provost company are detached for duties with brigades, but they are not permanently allotted.
- (f) In units the Provost duties are carried out by regimental police, who are trained and controlled by the adjutant of the unit.

3. Field Provost Units.

- (a) Army headquarters, commands and corps have special types of Provost companies with establishment varying from ten to six sections in strength.
- (b) The divisional Provost company consists of headquarters and six or eight sections.
- (c) The Provost section is the basic Provost sub-unit and should not be split, although for a few days it can be divided into two sub-sections to work independently. It consists of 16 N.C.Os., as all Provost personnel are N.C.Os. For mobility each section is provided with vehicles.

4. Operations.

- (a) In operations, the primary duty of the Provost becomes the maintenance of the forward momentum of traffic. Traffic control, check and information posts are therefore vital. To make the best use of road space, two-way traffic has to be organized properly. Priorities must be laid down and movement of traffic checked according to the movement plan issued by Movement Control. For this purpose, Provost detachments are provided with wireless links.
- (b) To stop panic and avoid confusion on roads, the Provost must control refugee traffic, organize transit of prisoners of war and establish cages for them.
- (c) When the operations become static, the Provost has to pay more attention to disciplinary and checking duties.

- (d) Special Investigation Branch, which is a part of the Provost, must be constantly on the look-out for major crimes by and against the forces in the operational areas. They must cleverly combat designs to pilfer and sabotage military stores and property in big installations.

5. Performance of Duties.

- (a) The Provost duties are the responsibility of "A" branch, while the traffic plan is based on the "G" plan. The "Q" branch controls the transport, while Provost units supervise the movement. Therefore, a close co-ordination amongst the various branches is most essential.
- (b) The senior Provost officer on the staff of any formation headquarters should never be below the rank of Major. He must be specially selected and should be in the complete confidence of the commander. He is responsible for the allocation and employment of Provost units allotted to the formation.
- (c) Provost personnel are trained specialists and, being limited in number, must be properly employed. They should not be detailed for such sentry tasks that can be done by non-Provost personnel.
- (d) The Provost have a difficult job and officers are inclined to flout their responsibility. "A" staff must see that Provost are properly supported.

6. The Provost officer on a formation staff performs the following duties:

- (a) Advises the commander on all Provost matters and carries out his orders;
- (b) training, control and employment of Provost units under command;
- (c) co-ordination with various branches on Provost policy and matters; and
- (d) liaison with security agencies on all Provost matters.

7. Responsibilities of Provost Officers.

- (a) Any Provost officer can at any time arrest and detain for trial any person (even senior in rank) who commits an offence.
- (b) Investigate accidents in which military officers are involved.
- (c) Liaise with intelligence and field security officers.

- (d) A Provost officer is authorized to punish any follower who is a menial servant, as prescribed in "Manual of Military Law."
- (e) A Provost officer can check the identity of any person at any time and, if in doubt, can ask him to accompany him to Provost lines for further investigation.
- (f) A military policeman can check any vehicle and search it if it is suspected to contain unauthorized persons or goods.
- (g) On orders of the formation commander, a Provost officer can search the government quarters of any army personnel.

CHAPTER XIII

THE ARMY SERVICE CORPS

Section 1. FUNCTIONS AND ORGANIZATION

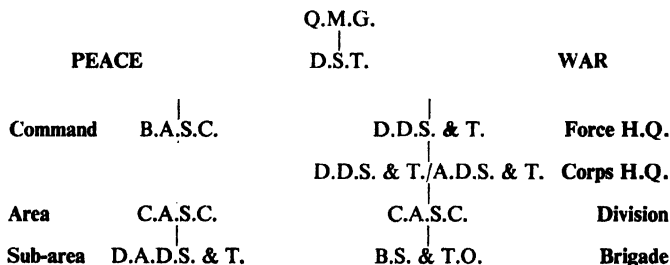
1. **Functions.**—The Army Service Corps is the largest and the most important service in the Army. During the Second World War it expanded to a quarter of a million. It is administered by the Quartermaster-General through the Director, Supply and Transport (D.S. & T.) and his staff at Army Headquarters. Its two main functions are:

- (a) The provision, maintenance and supervision of the supply to troops of all articles of Army Service Corps (A.S.C.) source.
- (b) The provision, administration and supervision of road transport for the requirements of troops.

2. The A.S.C. is divided into two main branches—viz., the supply branch, which includes petrol, oil and lubricants (P.O.L.), and catering; and the transport branch, which is subdivided into Motor Transport (M.T.) and Animal Transport (A.T.). The duties of the supply branch are to demand and receive supplies and P.O.L., arrange their inspection to verify specifications, maintain stocks to authorized level and make issues against authorized demands. The duties of the transport branch are to organize transport, operate and administer animal and mechanical transport units and arrange air supply. The transport requirements are met by the use of either government or hired transport. The latter is obtained by means of contracts, which are concluded by the supply officer concerned and operated by the Station Transport Officer (S.T.O.). Wherever government transport is available and economical, it is always used in preference to hired transport. Demands for transport are made on the Station Transport Officer (S.T.O.).

For air supply it is the duty of the transport branch to obtain the necessary aircraft from the Air Force. The supply branch is responsible only for providing the supplies. Catering was started during World War II and functioned as a separate corps, and was later embodied with the Army Service Corps, but still maintains a separate cadre. The chief duties of the catering staff are to train cooks of all units, advise unit commanders on improving the standard of cooking and avoidance of wastage, to experiment with rations, introduce new dishes and advise units regarding improvements in hygiene and sanitation in stores, cook-houses and dining-halls.

3. Organization of Army Service Corps.—The staff organization of the Army Service Corps in peace and war is as follows:



4. Duties of the Director of Supply and Transport.—The Director Supply and Transport is responsible for the following:

- (a) Specification and provision of articles other than those arranged by the Ministry of Food or the Military Farms Department, the inspection, holding and issue of supplies, forage, fuel and P.O.L. and the maintenance of reserves for the above.
- (b) Operation and administration of supplies, P.O.L., animal and mechanical transport and air despatch units of the A.S.C.
- (c) Organization in detail of the supply and transport services in accordance with the general policy approved by the Quartermaster-General.
- (d) General administration, control, training and appropriation of the supply and transport services.

(e) Advising

- (i) the Quartermaster-General on all technical matters connected with the service,
- (ii) the Military Secretary regarding officers of the corps,
- (iii) the Adjutant-General regarding terms and conditions of service of Army Service Corps personnel, including catering and food inspection.

5. Duties of the Brigadier, Army Service Corps (B.A.S.C.) and Deputy Director of Supply and Transport (D.D.S. & T.).—The functions of a B.A.S.C. in a command are:

- (a) He is the technical adviser to the G.O.C.-in-C. of the command on all A.S.C. matters and is responsible for the general administration, supervision and training of the units and establishments of the A.S.C. of the command.
- (b) He inspects the units and establishments of the A.S.C. of the command to ensure that the required standard of efficiency is maintained and that equipment and preparations for mobilization are satisfactory.
- (c) He is responsible for the maintenance of authorized stocks of supplies and P.O.L., for estimating their requirements and for demanding the same.
- (d) He renders advice and assistance to area commander in respect of requirements of A.S.C. located in the area.

6. Duties of the Deputy Director of Supply and Transport (D.D.S. & T.) at a force headquarters in operation are similar to those of the B.A.S.C. of the command.

7. Similarly, the D.D.S. & T./A.D.S. & T. at corps headquarters is the A.S.C. adviser to the corps commander and responsible for all A.S.C. matters in the formation. He is in executive command of all A.S.C. units in the formation.

8. Duties of a Commander, Army Service Corps (C.A.S.C.) at an Area/Division.

- (a) Executive command of all A.S.C. units.
- (b) Advise the commander on all A.S.C. matters, and responsible to him for the supply and transport system in the area.
- (c) Responsible for estimating the requirements of supplies and P.O.L., for demanding and maintaining the stocks at

the authorized level; conclusion and operation of all supply and transport contracts and making local purchases of supplies and P.O.L. in an emergency.

9. Duties of a Deputy Assistant Director of Supply and Transport (D.A.D.S. & T.) in a Sub-area.—D.A.D.S. & T. in a sub-area acts as an adviser to the sub-area commander on all supply and transport matters and is responsible to the C.A.S.C. on all technical matters relating to the corps. He does not interfere with the technical operation of supply depots. He prepares and operates local contracts where considered necessary by the C.A.S.C.

10. Duties of Brigade Supply and Transport Officer (B.S. & T.O.).—He is the representative of the C.A.S.C. and adviser to the brigade commander on all A.S.C. matters.

11. Duties of Station Transport Officer (S.T.O.).—A station or area transport officer is appointed in every locality where government road carrying transport is maintained and or where contract transport is in operation. If there is no sanctioned establishment of a S.T.O. in a station, the officer commanding the local supply depot is normally appointed to perform the additional duties. It is the responsibility of a S.T.O. to ensure the economical allotment of the lifting power of the transport agencies at his disposal.

12. Army Supply Corps Cover.—A.S.C. cover is provided by

- (a) Army headquarter depots/installations,
- (b) A.S.C. units,
- (c) A.S.C. training centres and records,
- (d) A.S.C. school.

13. The A.S.C. cover for a standard infantry division normally comprises one mechanical transport company and one composite platoon for the divisional troops and one of each of them for each brigade. The transport wing of a field ambulance is under command of the officer commanding field ambulance, the C.A.S.C. being responsible for the technical training and relief of drivers only.

Section 2. KINDS OF SUPPLIES AND THEIR SOURCES

14. The term "supplies" includes dry and fresh rations, forage, fuel, illuminants, hygiene chemicals and hospital comforts.

15. Sources of Supplies.—All articles of supplies may be divided into the following four categories:

- (a) Central purchase articles.
- (b) Local contract articles.
- (c) Local purchase articles.
- (d) Bread, meat and fodder.

16. Central Purchase Articles.—These may be divided into two categories:

- (a) Articles purchased centrally and delivered by the Central Procurement Department (C.P.D.) or Food Department, in accordance with demands placed on them by Army Headquarters—atta, rice, flour, sugar and certain hygiene chemicals.
- (b) Imported articles obtained through government agents in foreign countries—e.g., tinned foodstuffs.

17. Local Contract Articles.—These are articles which are more easily and economically supplied by local contracts than by central purchase—e.g., fresh fruit and vegetables.

18. Local Purchase Articles.—Local purchases are usually made in one of the following circumstances:

- (a) At the orders of the Director of Contracts to meet a temporary or expected shortage in some centrally purchased articles. Purchases are strictly limited to quantities authorized by the Director of Contracts.
- (b) In a real emergency, when stock of an article of central purchase is completely exhausted and there is no possibility of immediate replenishment from government sources. Purchases are limited to actual day-to-day requirements and are made only with the prior sanction of the next higher authority.
- (c) Spasmodic demands of authorized A.S.C. articles for which neither central nor local contracts exist.
- (d) Purchases for troops on the line of march, camps, etc.
- (e) Purchase of articles, demand for which is so small that it will be uneconomical to obtain requirements from normal sources of supply.
- (f) Purchase of fresh vegetables.

19. Bread, Meat and Fodder.

- (a) **Bread.**—Is usually obtained from A.S.C. bakeries, which

obtain the necessary ingredients in bulk from supply depots and convert the same into bread.

- (b) **Meat.**—Fresh meat is obtained by contract and, where A.S.C. butcheries exist, it is issued in dressed form. In places where central slaughter is not possible the units are issued with meat on hoof and they kill the animals under their own arrangements. Frozen meat is not supplied in the Army.

20. **Kinds of P.O.L.**—P.O.L. consists of the following main grades:

- (a) Aviation spirit.
- (b) Motor spirit.
- (c) Diesel and fuel oils.
- (d) Kerosenes.
- (e) Aero and motor lubricants.
- (f) Greases.
- (g) Miscellaneous—e.g., fog oil, flame-thrower fuel, etc.

21. **Sources of P.O.L.**—The indigenous production of P.O.L. is insufficient to cope with the demands of the country. Therefore a very large requirement is imported from foreign countries.

All items of P.O.L. are obtained by central purchase. In real emergency and where stock of any central purchase item is completely exhausted, actual requirements for immediate issue may be purchased from local trade.

Section 3. SUPPLY AND P.O.L. UNITS IN PEACE

22. **Headquarter Supply Company.**—Responsible for the administration and technical supervision of three to five supply platoons, each designed to issue in detail to up to 8,000 troops and to hold a reserve up to 1,000 tons in bulk.

23. **Composite Platoon.**—Comprises three sections—supplies, P.O.L. and ammunition. One is allotted per brigade and one for all divisional troops in a division. The platoon is a non-store-holding unit.

24. **Petroleum Company.**—The headquarters of the Petroleum Company is responsible for the administration and technical supervision of up to six petroleum platoons or petroleum storage platoons. The former is a general purpose unit capable of holding up to a maximum of 8,000 tons of P.O.L. with a daily turnover of 1,500 tons, or a maximum daily container filling of 120 tons. The latter operates and maintains bulk petroleum installations.

25. Station Supply Depot.—A Station Supply Depot operates in all stations where there are troops in large strength. The size of the supply depot is determined by the number of troops dependent upon it.

The following are the functions of a Station Supply Depot:

- (a) To receive all sorts of supplies transferred from other depots,
- (b) to hold such authorized stocks as may be determined from time to time, and
- (c) to issue such items of A.S.C. supplies as and when required by units for consumption.

26. In most stations the P.O.L. stocks comprise one of the groups in the Station Supply Depot. In larger stations, separate P.O.L. depots are constituted and these are run by petroleum platoons.

Section 4. SCALE OF SUPPLIES AND HOW THEY ARE DRAWN

27. Scale of Supplies.—Rations are issued free to all junior commissioned officers and other ranks. The peace and field scales are given in orders.

28. Drawing of Supplies by Units.—In a non-operational area, the supply depot is always placed near the dependent troops because there is no likelihood of direct interference by enemy forces. Units come to the supply depot and draw rations in their own transport and NO second-line transport is required. If any unit is not provided with government transport or it is not available for drawing supplies, it places a demand for transport on the station transport officer, who details government or hired transport.

29. Units located in a non-operational area are generally accommodated in barracks or tented camps and have facilities for holding stocks of rations. They draw non-perishables (i.e., dry rations) on a weekly basis and perishables (i.e., fresh supplies) on a daily basis except on Saturdays or holidays, when they draw for two days. Supply depot lays down a programme for a week which makes drawing, planning, and issue of supplies a simple routine and permits other duties in the depot to be arranged accordingly. The quartermaster in a unit maintains a ration and forage return (I.A.F. S-1519) to account for supplies drawn, held and consumed by the unit.

30. Indents for Supplies by Unit Quartermaster.—A unit located near a supply depot maintains a reserve of three days or, if at a distant station, of eight days. The unit draws non-perishables on a weekly basis and perishables on a daily basis. The quartermaster (Q.M.) prepares five copies of the indent (I.A.F. Z.2184B), of which four copies are submitted to the station supply depot one week before the day of drawing rations. The following information is given on the indent:

- (a) Authority for demand.
- (b) Data on which demand is based and the number of days' rations authorized.
- (c) Number and date of last indent for similar supplies.
- (d) Balance in hand.
- (e) Actual amount of rations required.

Emergent indents for stores urgently required have to be counter-signed by the area or sub-area station commander. Indents for perishables are submitted two days in advance of the day of drawing as they are obtained on contract basis from the local contractors.

The unit submitting the indent is responsible for the amount of rations demanded. An account is maintained by the user unit for audit purposes.

31. Responsibility of Indenting Officer.—The unit Q.M., when submitting his indent to the supply depot, is responsible for the following:

- (a) Requirements are foreseen as far as possible.
- (b) Indents are submitted on due date and on proper form (I.A.F. Z.2184B).
- (c) Indents are framed with economy.
- (d) Stores demanded are really required within the quantities authorized, allowing for balances in hand.
- (e) Correct data is furnished on the indents.
- (f) Quantities demanded on "as required basis" are reasonable and really required.

Indents are complied with on the personal responsibility of the indenting officer, who will be liable for the value of over-issues.

32. Contractor's Supplies.—The normal procedure is for the contractor to deliver all perishable articles at the supply depot, from where they are issued to units. Some items (e.g., firewood) the contractor may be allowed to deliver to units direct if ordered by

the formation responsible. A firewood contractor may be made to hold a reserve of firewood at a convenient site in the station, and daily issues may be made from this reserve to units under the supervision of a representative from the supply depot. In such cases accounting is as for other contract supplies delivered to units through the supply depot.

33. Complaints by Units.—When a unit ration party draws supplies from the supply depot, it is given every facility to examine all packages, etc., that it is drawing before acceptance. A unit is not allowed to return supplies for exchange once they have been removed from the supply depot, whether the packages containing the supplies have been opened or not. The unit Quartermaster is responsible for thoroughly checking the unit entitlement before acceptance and, if he is not satisfied with the quantity or quality of rations issued, he will bring the matter to the notice of the officer commanding supply depot and ask for a replacement. If an article is admittedly unfit for issue after examination by the officer commanding supply depot, it is replaced at the supply depot. In extreme cases, when the officer commanding supply depot considers the unit complaint unjustifiable and is unwilling to replace the articles complained of, he refers the matter in dispute to the station or sub-area commander, who is the final deciding authority.

34. Supplies on Unit Charge.—Stores once issued to the unit are under NO circumstances returnable to the supply depot on which the unit is dependent. If reserve rations on unit charge become unfit for issue, the unit is responsible for taking the necessary action with the competent financial authority for final disposal before demanding replacement from the supply depot.

Section 5. ISSUE OF SUPPLIES ON PAYMENT

35. Officers, officer cadets, junior commissioned officers, other ranks, pensioners and certain categories of civilians are entitled to purchase ration articles from the supply depot. The authorized personnel, the articles they may draw and the total value up to which they can draw are given in orders. The purchase of items for serving personnel is limited to the current ration scale for the troops, and that for their families, pensioners and other entitled civilians in the "rationed" areas is limited to the civil scales.

36. The issue of fresh supplies at any particular station is not subject to any monetary limit and may be made at the discretion of the local commander according to availability.

37. Rations on payment may be issued from the Detail Issue Depot (D.I.D.) of a supply depot, or ration drawing units may draw certain articles in bulk from the supply depot on which they are dependent and issue them in retail on payment to authorized personnel of the unit.

38. Certain articles of authorized stocks which cannot be turned over within their life may be issued on repayment, without any restriction as to scales, on special authority from the Quartermaster-General.

Section 6. SCALE OF P.O.L. AND HOW THEY ARE DRAWN

39. Petrol, oil and lubricants differ in many respects from other A.S.C. supplies and present several problems. Due to the liability of the containers to leakage, great care is required in their handling and stacking both by the A.S.C. and the user units. The fire risk in the handling of P.O.L. is great and as such very rigid fire precautions are necessary.

40. The reserve stock of P.O.L. to be held in a supply/P.O.L. depot over and above the normal working stock is laid down by the staff. This is worked on the number of vehicles in an area/sub-area for "A" and "B" type vehicles separately.

Units draw from the A.S.C. on an as required basis, but to conserve the mechanical transport and effect economy in the use of P.O.L., rationing is normally introduced both in terms of restricted mileage per vehicle per year and restricted gallons per vehicle per day.

41. Units drawing P.O.L. from the supply/P.O.L. depot draw in their own transport and strictly on container for container basis. The units submit demands on indent forms (I.A.F. Z.2206) one week in advance, and issues are normally made once weekly.

Section 7. ORGANIZATION AND USE OF ROAD TRANSPORT

42. All transport in the Army is either first-line or A.S.C. transport. The former is an integral part of unit establishment and the latter is operated by the A.S.C., whose responsibilities are as follows:

- (a) To supply and maintain the unit or formation served and to carry a second-line reserve of essential commodities for that unit or formation.

- (b) To provide a pool of transport for additional requirements.
- (c) To provide transport of a specialized nature—e.g., bridging company vehicles, tank transporters, ambulance cars, etc.

43. All A.S.C. companies have the same basic organization, which includes the following components:

- (a) **Motor Transport Company Headquarters.**—It commands from two to five transport platoons and the necessary specialist platoons.
- (b) **Transport Platoon.**—The standard lift of a general transport company equipped with 3-ton lorries is 90 tons of general stores, or the marching personnel of one infantry battalion. Each platoon has, in addition, 10 per cent. relief vehicles and its own administrative vehicles, which must not be included when reckoning the available lift.
- (c) **Relief Driver Increment (R.D.I.).**—This comprises one havildar and 30 other ranks. It provides relief drivers for all types of transport companies in addition to those in transport platoons. These additional drivers are not to be considered and used as loaders.
- (d) **Workshop Section.**—Is attached from the Electrical and Mechanical Engineers to carry out first and second-line repairs to company vehicles. The type of the workshop section depends upon the number of transport platoons in a company and the types of vehicles they hold.

44. A.S.C. transport companies are of three categories—second-line transport companies, general transport (G.T.) companies and specialized transport companies. The second-line transport forms an integral part of, and operates under the command of, formations. The second-line companies are designed to carry a second-line reserve of essential commodities for all troops in the field, including Army and corps troops. They are also responsible for the daily maintenance of these troops.

45. A basic scale of second-line reserve to be carried is laid down by the Army Headquarters, and it is upon this scale that the amount of transport to be provided is determined. Thus the number of task vehicles in a divisional regiment A.S.C. is, in theory, sufficient to lift the basic second-line loads of the formation. In practice, however, the quantity of each commodity will vary according to the particular operation in hand, and consequently

the number of vehicles required to lift each commodity will frequently vary. For instance, during mobile operations it may be necessary to carry additional petrol at the expense of ammunition; in static operations, ammunition will, however, be top priority. All A.S.C. vehicles within a formation must, therefore, be regarded as a pool of transport to be used in the most flexible manner possible. It is only by pooling the resources that the most economical use of all available transport can be ensured.

46. Second-line companies may be organized either on a commodity or composite basis at the discretion of the C.A.S.C. Usually it will be more economical, in both manpower and transport, for the companies to be organized on a commodity basis when the formation concerned is fighting concentrated. This in no way limits the possibility of detaching sufficient transport to serve a force which may be operating in an independent role.

47. Second-line transport fulfils a double function of delivering materials as required to units and of holding reserves of material on wheels. Except during formation moves, second-line loads are normally dumped, thus making transport available for general duties.

48. The more the transport that can be pooled and its control centralized, the more economical and flexible is the transport system. It is on this principle that the control of general transport companies is vested in Army Force Headquarters. These units are allotted to formations and areas to supplement their own transport when required.

49. Specialized transport units A.S.C., which are specially designed to carry certain loads, are:

- (a) Tank transporter companies.
- (b) Motor ambulance companies.
- (c) Bridging companies.
- (d) Tipper companies.
- (e) Petrol tanker companies.
- (f) Armoured transport regiments.
- (g) Amphibian general transport companies.

50. For command and control, second-line companies are under the A.S.C. of the formation they serve. General Transport (G.T.) companies and specialized companies may be grouped into columns of up to five companies, each column being commanded by a C.A.S.C. transport column.

51. Carriage of Troops by Mechanical Transport.—The scale of second-line transport with formations is usually sufficient to carry only the daily requirements of, and the second-line reserves for, the dependent formations. It is not, therefore, advisable for this transport to be diverted to other purposes, without a serious risk of its failing to carry out its allotted functions. The most frequent misuse of second-line transport is when it is constantly ordered to embus troops. While it is often tactically necessary to embus troops, second-line transport is not provided for this purpose, nor is it to be normally considered available for it. When movement of troops by M.T. is necessary, the transport required should, as far as possible, be furnished by higher formations from the pool of companies held in reserve.

52. The command of troops carried in A.S.C. transport rests with the commander of the formation or unit being lifted. The division of responsibility between the column commander and the A.S.C. officer in charge of the troop-carrying transport should be laid down clearly. During movement in forward areas, the column commander is responsible for general march discipline, orders for embussing and debussing and operational control. He will, however, consult the A.S.C. officer on all matters affecting the personnel and vehicles, including such matters as rests and maintenance periods before and after movement. The A.S.C. officer is responsible for technical control and for dealing with breakdowns. After troops have debussed and vehicles have cleared the road, the A.S.C. officer, if still under command, will remain with the headquarters of the formation or unit concerned, ready to receive further orders.

53. Misuse of Transport.—The misuse of transport takes many forms, of which the more common are:

- (a) **Interference.**—This normally takes the form of orders to drivers to drive too fast or to follow difficult cross-country routes. The effect of excessive speeds over bad roads ruins vehicles, with a consequent demand for spare parts and new vehicles. The reserve of spare parts and new vehicles is designed to meet battle losses, and its diversion to avoidable use constitutes a serious loss. In battle everything must be sacrificed to tactical necessities, but there is no excuse at other times for fast travelling regardless of the road conditions, or for unnecessary cross-country

work. It is better to go some miles round on a good road than attempt a bad road or difficult cross-country going.

- (b) **Overloading.**—Each vehicle has a definite load-carrying capacity. Everything in excess of this puts an abnormal strain on every part, shortens the life of the vehicle, and may affect its manœuvrability and so be the cause of an accident. It inevitably leads to trouble with springs.
- (c) **Detention.**—If mechanical transport is supplied to a unit, it must be used promptly and promptly released on completion of duty.
- (d) **Commandeering.**—M.T. units and vehicles have their appointed tasks and the practice of interfering with them in execution of their duty, either for a unit's or an individual's convenience, is forbidden. Similarly, no officer or other rank will take over the driving of a vehicle from its driver, unless the latter is incapacitated by wound or injury or any other cause.
- (e) **Retention under Load.**—Retention of vehicles under load at all times weakens springs, etc. Vehicles should be off-loaded as soon as exigencies permit.

54. First-Line Transport.—First-line transport is an integral part of the unit and is allotted for the conveyance of stores and supplies of all kinds. This transport is, generally speaking, adequate to meet all requirements in open warfare. Partly the vehicles are allotted for the carriage of ammunition, light automatics and entrenching tools, and partly for the conveyance of the more creature necessities of the troops, such as greatcoats, rations and water. During active operations the unit transport is divided into two parts—the A Echelon, which consists of all vehicles required or readily available to join the unit to maintain its fighting efficiency, and B Echelon, which comprises transport carrying stores and equipment that will not be needed until there is a pause in fighting.

A Echelon may be subdivided into two parts:

- (a) **A1 Echelon** (sometimes called F Echelon).—This consists of transport which is required to carry stores for immediate fighting—e.g., in an infantry battalion the company carriers, commanding officer's scout car and mortar carriers. It will naturally vary with the type of operations.
- (b) **A2 Echelon.**—This consists of transport which is required to carry equipment and stores that will be wanted during the battle, but at a later stage.

55. During active operations, A Echelon transport normally remains under unit control, under the immediate command of the unit transport officer, while the B Echelons, brigaded together, come under control of the brigade transport officer. During employment of large forces on narrow fronts it may sometimes be advisable to brigade the A Echelon under brigade control and concentrate the B Echelons under divisional control.

56. No hard-and-fast rule can be laid down for the division of unit transport into A1, A2 and B Echelons. The grouping of vehicles depends on the operational situation. In defence far fewer vehicles will be included in A1 Echelon, especially if the enemy air and artillery are active, while in pursuit the size of A Echelon will be much larger.

57. **Animal Transport (A.T.).**—During the past forty years, animal transport has undergone a series of eclipses and revivals. In the first two years of World War II it nearly went moribund. This was naturally due to the great successes of armoured units in Europe. Later, with the start of jungle warfare in Asia animal transport attained its greatest revival.

58. **Characteristics of A.T.**—The characteristics of animal transport are:

- (a) **Small Circuit of Action.**—A.T. can move, on an average, 16 miles per day.
- (b) **Small Lift and comparatively large Ration Requirements.**—Over reasonable going, a mule carries 160 lb. (one maund either side) plus the unexpended portion of the day's ration. Over hill tracks, loads will frequently have to be reduced. Each extra day's ration means a reduction of the useful lift. Hence the number of mules for a force of any size tends to become enormous if the force is to be maintained solely by A.T. over a substantial distance. Due to this it becomes necessary at times to reduce the first- and second-line scales of lift of the formation, or, in other words, observe the principle of "going hard" off the road.
- (c) **Slow Rate of Move.**—The rate of move is an average of 3 miles an hour for pack animals and $2\frac{1}{2}$ miles an hour for A.T. carts on level roads.
- (d) **Vulnerability.**—Columns of animals are very vulnerable to air attack and, in close country, to ground attack.

Drivers of animals spread out in long columns can do little to protect themselves against surprise ground attack, even though they are armed. In harbour, animals take up much space. Dispersion of animals on the move makes the problem of control difficult.

- (e) **Casualties.**—In addition to the casualties caused by enemy action, animals easily become casualties from such preventable causes as badly fitting saddles, bad loading and tying of loads, and lack of rest.
- (f) **Terrain.**—In certain areas animal diseases are prevalent and casualties may be extremely high.

59. Animals cannot work for any length of time without adequate rations and efficient watering arrangements. They quickly lose condition and saddles no longer fit, resulting in a high percentage of casualties from sore backs and galls. They also become weak and, if kept in continued use, eventually become exhausted and die. The recuperation of animals which have become debilitated through lack of rest or adequate rations is a very long process.

60. Units, and not the A.S.C., are responsible for tying up loads, loading and unloading animals on all occasions (including on the march), and adjusting loads. The driver's duty is to hold his animals and to see that they are not overloaded. The issue of universal carriers to A.T. units has eased the problem of training inexperienced personnel in tying pack loads. This carrier consists of a row of wooden slats fastened to a strip at each end (on the principle of a folding camp table top).

61. **Uses of A.T.**—In the past, the normal practice has been for certain formations to have their own first- and second-line animal transport. But now no formations have any first- or second-line A.T., but a pool is held by corps; allotment to the former is made as required. This pool consists of a number of A.T. regiments. An A.T. regiment is designed to provide first- and second-line transport for one brigade group. Spare animals are provided to take over the loads of animals which become casualties on the line of march. They should accompany each column or convoy and must start out unloaded.

CHAPTER XIV

THE ARMY MEDICAL SERVICES

Section 1. ORGANIZATION

1. **Introduction.**—Health is a battle-winning factor. In Eastern theatres of war casualties due to sickness greatly exceeded those due to enemy action. "Maintenance of health is one of the most important responsibilities of command."

2. The main functions of the Medical Services of the Army are:

(a) Prevention of diseases and preservation of health of troops.

(b) Care and treatment of sick and wounded.

(c) Advise commanders on all medical matters, particularly

(i) prevention of diseases,

(ii) sanitary measures,

(iii) selection of sites for location of troops.

(d) Command, administration and training of all medical units and personnel.

(e) Provision and replenishment of medical stores.

3. The Army Medical Services comprise the following:

(a) Army Medical Corps (A.M.C.).

(b) Military Nursing Service (M.N.S.).

(c) Army Dental Corps (A.D. Corps).

4. Before April, 1943, the Medical Services of the Army consisted of the Indian Medical Service (Officers), the Indian Medical Department (I.M.D.) (Warrant Officers and Viceroy's Commissioned Officers), and the Indian Hospital Corps of Non-Technical

Viceroy's Commissioned Officers and other ranks. All these were combined into the Indian Army Medical Corps (I.A.M.C.). Medical Officers of the Indian Navy and Air Force are A.M.C. officers seconded to the Navy and Air Force.

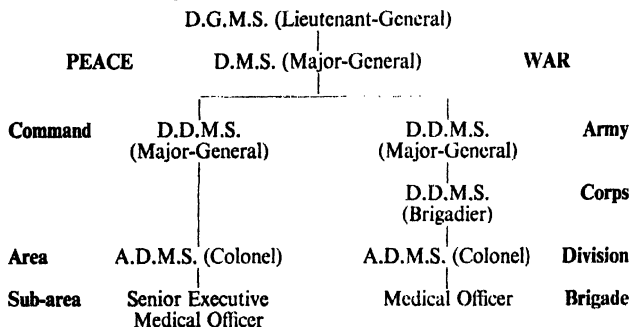
5. The head of the Armed Forces Medical Services is the Director-General, Armed Forces Medical Services (Lieutenant-General). He exercises over-all control of the Medical Services of the Army, Navy and Air Force. He is :

- (a) Adviser to the Ministry of Defence on all Armed Forces Medical matters and is directly responsible to the Ministry of Defence for over-all Medical policy matters of the Armed Forces.
- (b) Responsible for co-ordinating and the efficient direction of all the three Medical services.
- (c) Provision, storing, issue and developing of Medical equipment.
- (d) Planning and direction of Research and Development in all subjects of service Medicine.
- (e) Recruitment, training and supply of Medical Officers for the three services of the Armed Forces.
- (f) The provision of Dental Service for the Armed Forces.
- (g) The provision of Nursing Service for the Armed Forces.
- (h) The operation and administration of Medical units NOT placed under the control of the three fighting services.
- (i) Inter-service attachments of Medical Officers.

6. The Army, Navy and Air Force has each a Director as the head of its Medical Service. The Director of Medical Services (D.M.S.) of each service is responsible for :

- (a) Control of Medical services in accordance with the policy of the Commander-in-Chief.
- (b) Giving technical advice to the Commander-in-Chief concerned on all matters affecting the health of troops. In that capacity he has direct approach to the Commander-in-Chief.
- (c) Medical planning.
- (d) Distribution and administration of Medical personnel.
- (e) Administration of Medical units.
- (f) Preparation of vital statistics relating to that service.

7. The staff organization in formations in peace and war is:



Section 2. PEACE MEDICAL UNITS

8. **Corps Centre and Record Office.**—There are two Centres:

- (a) A.M.C. Centre (South), with the Record Office and Training Battalion.
- (b) A.M.C. Centre (North), with a Training Battalion and a Boys' Company.

9. **Training Establishments.**

- (a) **Armed Forces Medical College.**—The primary function of this college is to give post-graduate training to the members of the Medical services of the Armed Forces. It has the following departments:

- (i) Clinical.
- (ii) Hygiene.
- (iii) Pathology.
- (iv) Radiology.
- (v) Blood Transfusion.

- (b) **A.M.C. Centres.**—Responsible for initial training of all A.M.C., junior commissioned officers and other ranks. A.M.C. Centre (South) is also responsible for the initial military training of all newly commissioned officers of the corps.

- (c) **Command Anti-Malaria Training Units.**—These are responsible for training personnel of all categories in anti-malaria work in stations and units. Each Command has one such unit. The O.C. of the unit is the adviser to the D.D.M.S. Command on all anti-malaria matters.

10. Military Hospitals.—Military hospitals are located at cantonments on the required bed strength, depending on the strength of troops located there. The hospitals cater for:

- (a) Officers.
- (b) Officers' families.
- (c) Junior commissioned officers and other ranks.
- (d) Junior commissioned officers' and other ranks' families.

11. In addition to the general hospitals there are certain specialist hospitals dealing with a particular disease. The number of officers, nursing officers, and other personnel authorized for a military hospital depends on the number of beds authorized. The officer commanding a hospital of 75 beds and over is a Lieutenant-Colonel.

The O.C. of the Military Hospital is normally the Senior Executive Medical Officer of the station. He advises the station commander on all problems affecting the health of troops in the station. He also gives technical advice to Regimental Medical Officers in the station.

12. Medical Stores Depots.

- (a) Armed Forces Medical Stores Depot (A.F.M.S.D.), Bombay, deals with the procurement of all Medical stores and equipment for the Medical services from abroad and from within the country. This unit caters for the requirements of Southern Command.
- (b) A.F.M.S.D. (Lucknow) procures stores and supplies medical stores for Eastern Command.
- (c) Base Depot Medical Stores procures stores and supplies medical stores for Western Command. This is a field unit.

13. Hygiene Organizations.

- (a) **Units.**—Unit sanitary and anti-malaria squads; unit Anti-Malaria Officer (Regimental) acts as adviser to the officer commanding.
- (b) **Stations.**—Station Hygiene Organization. Full-time Medical Officer-in-charge of large stations, part-time in others.
- (c) **Area H.Q.**—Deputy Assistant Director of Hygiene (D.A.D.H.), adviser to A.D.M.S., who in turn is adviser to Area Commander.

(d) **Command H.Q.**—Assistant Director of Hygiene (A.D.H.), adviser to D.D.M.S., who in turn is adviser to the G.O.C.-in-C. Command.

(e) **Army H.Q.**—Deputy Director of Hygiene and Pathology (D.D.H. & P.), adviser to Director of Medical Services (D.M.S.), who is adviser to the Commander-in-Chief.

14. **Laboratories.**—Each Command has a laboratory called the Command Laboratory, located one each in Bangalore, Delhi and Ranchi. O.C. of this unit is the adviser to D.D.M.S. in Pathology. The unit, in addition to the normal duties of laboratories, carries out training of officers and laboratory assistants.

The Pathology Department of Armed Forces Medical College (A.F.M.C.) trains officers in Pathology and carries out research.

15. **Dental Centres.**—To a general hospital a Dental Centre is generally attached, which provides dental cover for all patients in the area.

16. **Medical Inspection (M.I.) Rooms.**—In every station, to provide medical inspection on a centralized basis, M.I. Rooms are run by unit Medical Officers. Low category personnel are evacuated to hospitals for further examination and treatment.

Section 3. FIELD MEDICAL UNITS

17. **General Organization.**—The general functions of the Field Medical Units are:

(a) Prevention of disease.

(b) Collection of sick and wounded from forward areas.

(c) Evacuation of sick and wounded to the appropriate Medical unit, which provides adequate facilities for treatment.

(d) Treatment of sick and wounded.

Field Medical Units are broadly classified into:

(a) Divisional Medical units—i.e., units which are employed in forward areas with fighting formations.

(b) Non-divisional Medical units or units normally employed on the L. of C. or at the Base.

18. **Medical Staff of a Division.**—The Medical Staff in a division (and its lower formations) consists of:

(a) An A.D.M.S. (Colonel), who is the head of the Medical services in a division. He is commander of all Medical

units in the division and advises the divisional commander on all Medical matters.

- (b) A D.A.D.M.S. (Major), who assists the A.D.M.S.
- (c) One O.C. Field Hygiene section, though NOT on the establishment of Divisional Headquarters, advises the A.D.M.S. on all technical matters regarding sanitation and hygiene.
- (d) Attached Medical Officer (Captain/Lieutenant) conducts the Divisional M.I. Room and during his spare time is employed as Staff Captain to A.D.M.S.

19. There is NO Medical staff on the H.Q. of formations below division. O.C. Field Ambulance attached to a brigade (Lieutenant-Colonel) is called the Senior Executive Medical Officer (S.E.M.O.) of the brigade and advises the brigade commander on all medical matters. The Senior Executive Medical Officer (S.E.M.O.) controls all Regimental Medical Officers (R.M.Os.) in the brigade regarding technical matters. The R.M.O. is the Medical adviser to the battalion commander.

20. Divisional Medical Units.

- (a) **Regimental Aid Post (R.A.P.).**—This is the Medical establishment in a battalion and consists of the R.M.O. and the stretcher-bearers of the Medical platoon. Expert first aid is rendered to casualties and they are resuscitated and made comfortable. Casualties which do NOT require further treatment are returned to their companies. Field Medical cards are prepared and attached to patients and they are evacuated by the Field Ambulance personnel to the Advance Dressing Station, which is a detachment of the Field Ambulance. Ammunition from those patients who are to be evacuated is removed at the Regimental Aid Post. R.A.Ps. are normally situated near Battalion Headquarters.
- (b) **Field Ambulances.** — Field Ambulances are divisional troops and are allotted on a scale of three per division. Some Field Ambulance units are kept as Corps and Army reserve and on the line of communications.

There are the following types of Field Ambulances:

- (i) *Divisional Field Ambulance.*—This unit consists of a H.Q. and two companies. The H.Q. Company can form a Main Dressing Station (M.D.S.), while

each company can form an Advance Dressing Station (A.D.S.). Each company is self-contained and can be subdivided into two platoons, each capable of forming a Light Dressing Station (L.D.S.). Each company has eight stretcher-bearer parties and six motor ambulance cars.

A Field Ambulance is a very flexible unit. With minor adjustments it can carry out the duties of a Casualty Clearing Station or a General Hospital. Its primary role is to evacuate and treat casualties from Regimental Aid Post to Main Dressing Station and, if necessary, hold cases unfit for further evacuation. Evacuation of casualties beyond Main Dressing Station is NOT a Field Ambulance responsibility. It is designed to serve a brigade and attached troops.

- (ii) *Light Field Ambulance*.—This Field Ambulance is organized to cater for armoured formations. It consists of a H.Q., which forms the Main Dressing Station, and four sections, each of which can form an Advance Dressing Station. If essential, each section is capable of splitting into two Mobile Sub-sections which can operate independently for limited periods. It is designed to provide an evacuation system capable of covering a wide area on the principle of quick evacuation; even the Main Dressing Station formed by the H.Q. is NOT intended as a general rule to hold casualties, but to evacuate them as quickly as possible. A Light Field Ambulance has fourteen ambulance cars on its establishment.

- (iii) *Para Field Ambulance*.—As its name implies, this Field Ambulance is designed for operation with para troops. It consists of a H.Q. and four sections. Unlike other field ambulances, this unit has on its establishment two surgeons and an anaesthetist, and equipment to form a surgical team of its own. It also has a dental officer on its establishment.

(c) **Field Hygiene Section**.—The main types are:

- (i) Divisional Field Hygiene Section.

- (ii) Light Field Hygiene Section for employment with an armoured formation.
- (iii) Para Field Hygiene Section, which consists of a H.Q. Section and three/four sub-sections.

The duties of a Field Hygiene Section are :

- (1) Inspection of sanitary installations.
- (2) Supervision of unskilled labour employed on sanitation.
- (3) Skilled sanitary work.
- (4) Disinfection and disinfestation.
- (5) Inspection of areas to be occupied by troops, so that unhygienic areas may be placed out of bounds.
- (6) Hygiene propaganda.

(d) **Anti-Malaria Unit.**—In theatres of war with a high incidence of malaria, this disease has proved a menace to military operations. Anti-Malaria Units are invaluable in such cases. The unit consists of a H.Q. and four sections. These units are raised on the scale of one per division and L. of C. area, but it is a non-divisional unit allotted to a division only when required. Its main duties are :

- (i) To investigate malaria problems and to advise on methods of control.
- (ii) To check and report on malaria control measures.
- (iii) Spraying troops' accommodation and neighbouring villages.
- (iv) To apply larvicides.
- (v) To construct minor anti-malaria works—e.g., drainage.
- (vi) To store anti-malaria stores and issue them to units.
- (vii) To assist in maintaining and carrying out minor repairs to units' anti-malaria equipment.

(e) **Mobile Surgical Unit.**—Like the anti-malaria unit, this is a non-divisional unit allotted to a division as and when required. This unit helps a great deal in saving lives in forward areas. It works normally at the M.D.S., but in very exceptional cases is attached to A.D.S. It is capable of carrying out major surgical operations, but can NOT hold casualties, and hence the necessity to attach it to other Medical units capable of holding casualties.

- (f) **Bearer Company.**—Consists of H.Q. and three platoons. Each platoon can provide 18 stretcher-bearer squads—i.e., 72 stretcher-bearers. Its role is to provide for evacuation of casualties in difficult country where mechanical transport cannot be used. They are provided at a scale of one per division.
- (g) **Advance Base Transfusion Unit.**—Designed to give transfusion to casualties as early as possible. Normally attached to M.D.S. at a scale of one per division.
- (h) **Dental Unit.**—A non-divisional unit may be allotted as and when required.
- (i) **Motor Ambulance Section (M.A.S.).**—These are A.S.C. units concerned solely with the evacuation of casualties, normally from M.D.S. backwards. Whenever required, ambulance cars of this unit are allotted to M.D.S. to clear cases from A.D.S. Each M.A.S. has 30 ambulance cars.
- (j) **Field Ambulance Troops (A.S.C.).**—This is another A.S.C. unit used for evacuation of casualties. The unit has 40 mules, specially trained for carrying patients. Only sitting cases can be transported on mules.

CHAPTER XV

THE ARMY ORDNANCE CORPS

Section 1. FUNCTION AND ORGANIZATION

1. **Definition.**—Ordnance is the term used to imply procurement, manufacture, storage and issue of all types of Ordnance stores required by the Army in peace and war. These functions are performed by the Army Ordnance Corps (A.O.C.).

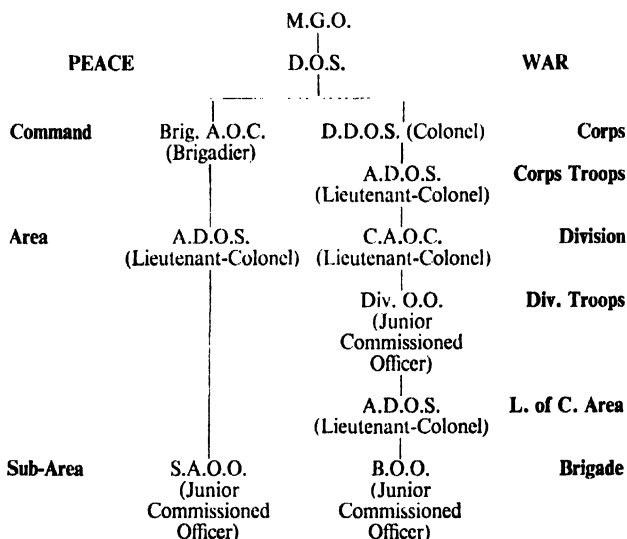
2. **Functions.**—A.O.C. is responsible for the following:

- (a) To ensure that all units are equipped according to the scales laid down for them, have neither deficiencies nor hold surpluses.
- (b) Provision, receipt, storage and issue of all Ordnance stores.
- (c) Accounting for all Ordnance stores.
- (d) Minor repair of all Ordnance stores, less technical, which need not be sent to workshops.
- (e) Replacement of all Ordnance stores when they have been rendered unserviceable or lost in action.
- (f) The supply of spare parts to keep all warlike stores in use.
- (g) Operation of laundry, bath and kinema units.
- (h) Manufacture of industrial and inert gases.
- (i) Organization for collection of salvage.

3. **Organization.**—A.O.C. is controlled by the Director of Ordnance Services (D.O.S.) at Army Headquarters under the orders of the Master-General of Ordnance (M.G.O.), who is the principal staff officer responsible to the C.-in-C. for the direction, control and supervision of the whole chain of Ordnance supplies for the Army.

The Ordnance Services Directorate under the D.O.S. has many sections dealing with the various aspects of policy, surplus and unit stores, vehicles and spare parts, ammunition and explosives, control and inspection of Ordnance establishments, armaments, signals and engineer stores, general stores, training, financial and personnel matters and movement of stores and salvage.

The staff organization in formations in peace and war is as follows:



4. Divisional Ordnance Staff.—Divisional Ordnance Staff is located at the divisional headquarters and is under the command of the C.A.O.C., who is adviser to the divisional commander on all Ordnance matters and performs the following duties:

- (a) Inspects all units in the division to prevent waste and extravagant use of Ordnance stores.
- (b) Advises on the supply and distribution of Ordnance stores.
- (c) Scrutinizes all indents for Ordnance stores and forwards them to depots for issue.
- (d) Carries out local purchase of Ordnance stores where necessary.

- (e) Lays down procedure for salvage.
- (f) Controls divisional Ordnance units.
- (g) Controls Ordnance stores distribution detachment, which breaks bulk of stores into unit detail and delivers them to the brigades.
- (h) Notifies chief Ordnance officers at Ordnance depots and other Ordnance officers concerned of any transfer of units from or to his formation to ensure that subsequent issues are forwarded to the correct destination.

Section 2. ORDNANCE DEPOTS AND INSTALLATIONS

5. Ordnance Static Installations.—There are Central Ordnance Depots (C.O.Ds.) holding different types of Ordnance stores.

The Central Ordnance Depots are usually designed to make central provision for certain particular types of stores. When these stores materialize from trade/overseas, they are received, accounted for and stored in the depots. Dues in are maintained for the stores against their target dates for receipts, and expediting action is taken where necessary.

In each Command there are:

- (i) Command Ordnance Depots for general stores and clothing, signal stores, wireless stores, engineer stores, armaments and M.T. stores.
- (ii) Command ammunition depots for ammunition.
- (iii) Command Vehicle Depots for vehicles.

These are designed to hold Command stocks for retail issues to units in their respective commands. Command ammunition and vehicle depots also hold Army Headquarter stocks of ammunition and vehicles.

These command depots replenish their stocks according to their monthly issues from the Central Ordnance Depots concerned.

6. Installations in War.—The Ordnance installations in war are so organized and stocked that they are able to supply quickly the requirements of the forward units. For the conduct of any operations on a large scale, it is generally necessary to establish a base which would maintain all units in that area. The backbone of the A.O.C. stores organization in the field is the static installations of stored depots at the base, from which constant replenishment of advance depots, Ordnance field parks and forward dumps is arranged.

The main base installations may be in the war theatre itself or in the main base country, separated from the theatre of active operations by a sea voyage.

7. Base Ordnance Depot (B.O.D.).—The Base Ordnance Depot (B.O.D.) is responsible for:

- (a) Storage and maintenance of the complete range of Ordnance stores required by the force (up to twelve divisions).
- (b) Making issues to formations and units.
- (c) Replenishing forward Ordnance installations.
- (d) Holding reserves at the scale laid down by Army Headquarters.
- (e) Holding and repairing all non-technical stores and clothing returned by units.

8. In case the force consists of less than six divisions, an Advance Base Ordnance Depot (A.B.O.D.) is established to perform the above functions. An A.B.O.D. is generally phased into the theatre during the early stages of the campaign as an advance element of the B.O.D. or to act as an advance projection if the line of communications is overstretched, or to be a forward depot when there is no B.O.D. and the force is maintained directly from the main installations in the country. In the event of a seaborne invasion, Ordnance Beach Detachments (O.B.D.) land with the first elements. These detachments hold fast-moving spares and stores arranged according to packs. Later, as expansion takes place, O.F.Ds. and A.O.Ds. follow, sometimes giving way to a B.O.D. if necessary.

9. The organization of the B.O.D. is:



10. Base Ammunition Depot (B.A.D.).—To meet requirements, a Base Ammunition Depot with a capacity to handle 21,000 tons is established. The B.A.D. consists of a Headquarters and three ammunition platoons, which can be raised to five with a total capacity of 50,000 tons.

Its functions are :

- (a) To receive ammunition from rear installations and dispatch it to forward areas or to Advance Ammunition Depots.
- (b) To maintain and inspect ammunition.
- (c) To receive returned ammunition for repair or salvage.

The Advance Ammunition Depot (A.A.D.) has capacity from 10,000 to 20,000 tons and fulfils the same functions.

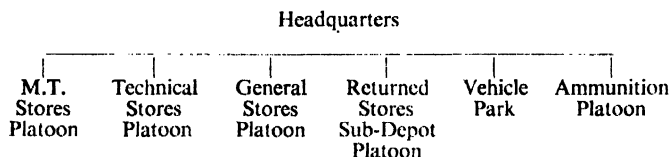
11. From the B.O.D. or B.A.D. in base, or A.O.D. or A.A.D. in the advance base, the Ordnance stores are supplied to Ordnance Field Parks and Ordnance Field Depots by Army Service Corps transport.

12. **Corps Ordnance Field Park.**—An Ordnance Field Park is provided for each corps, division or an independent brigade. It holds and carries stocks "on wheels" for thirty days' requirements of such essential items which are frequently required by units, including stores for first echelon unit repairs, and for maintenance of unit war equipment. The range of stocks held consists of frequently required spares for guns and mortars, small arms, engineer, signal and wireless stores and M.T. spare parts for all makes and types of vehicles in the formation. In addition, corps troops Ordnance Field Parks carry a formation reserve of controlled stores, including vehicles and guns, released to the corps.

13. **Divisional Ordnance Field Parks.**—The Ordnance Field Park is a part of the basic divisional troops and is sited in the divisional administrative area. This installation only serves the units in the formation and is controlled by the C.A.O.C. It does not supply requirements of E.M.E. workshops and A.S.C. workshop platoons, which demand their requirements direct from base ordnance depots.

The Divisional Ordnance Field Park consists of Headquarters and three brigade platoons, which are organized to function independently and can be detached to brigades if required operationally. The range of stocks held consists of frequently required spares for guns and mortars, small arms, engineer, signal and wireless stores and M.T. spare parts for all makes and types of vehicles in the formation. In addition the Divisional Ordnance Field Park holds a small reserve of complete equipment, including minor engine assemblies to meet replacement issues of units in the formation.

14. Ordnance Field Depots (O.F.D.).—The Ordnance Field Depot is an L. of C. unit and controlled by D.D.O.S. of that formation. It holds thirty-day requirements for one or two divisions of selected limited range of "fast moving"* items of all types of stores. It does not hold the entire range of Ordnance stores. Vehicles and ammunition are held in a vehicle park and an ammunition platoon is provided in the establishment. The unit is normally organized as follows:



Indents from units for the items for which the O.F.D. is scaled are forwarded by the C.A.O.C. of the division to the O.F.D. for issue, while the indents for items not held by O.F.D. are passed by C.A.O.C. direct to A.O.D./B.O.D. concerned.

15. Ordnance Vehicle Park.—When vehicles arrive at the supply port or base, they are sent to Vehicle Parks established on the lines of communications. The Vehicle Parks with Base and Advance Ordnance Depots are responsible for supplying forward units with vehicles. They also receive back in their Returned Vehicle Parks (R.V.Ps.) such used vehicles which cannot stand the strain of operational conditions from forward units and reissue them to static units.

16. Returned Stores Sub-Depots (R.S.S.D.).—These form part of an Ordnance Depot such as B.O.D., A.O.D. and O.F.D. It is a Sub-Depot and receives repairable Ordnance items from forward units, conditions them if necessary and reissues them to their stock groups. Stores which are unserviceable are sent to its salvage section for back-loading to base. It is a large organization employing many civilians on repair work.

17. Salvage Units.—Waste is never to be permitted and in war it is criminal. There must be constant effort on the part of all ranks to conserve and preserve all items of equipment, and when no longer required they should be salvaged because the disused or discarded

* "Fast moving" is a phrase applied to such items as are in great need in the front line, such as batteries and spare parts of weapons.

items can be put to uses different from those for which they were originally meant. Old clothes can be repaired, vehicles can be "cannibalised"* and used to put other vehicles on road. Old tyres can be used for soles of boots and ammunition boxes and cartons can be used again. In short, there is nothing in the debris of the camp which cannot be put to some useful purpose and, before it is destroyed by exposure to the elements, it should be collected and dispatched to the nearest salvage depot by the forward units.

Those items of salvage which can be put to immediate use are reissued to units under formation orders while others are sent to Base Salvage Depots, where they are sorted out, repaired, catalogued and disposed of.

18. Mobile Laundry and Bath Unit (M.L.B.U.).—This unit is provided at the scale of one per division and has a headquarter, a laundry section and a bath section. Each section, being capable of working independently, requires good arrangements for water supply and drainage and should be centrally located so that the troops can make good use of the facilities for

- (a) washing underwear and personal clothing.
- (b) hot baths,
- (c) change of underclothing for replacement of soiled clothes, and
- (d) decontamination of clothing and equipment.

19. A.O.C. Stores Section attached to E.M.E. Workshops.—These sections are attached to E.M.E. workshops to provide them with spares required for repairs to be carried out by them. For purposes of administration, they are under the command of the officer commanding the workshop, but are technically controlled by C.A.O.C. of the formation.

20. Mobile Ammunition Repair Unit (M.A.R.U.).—Inspection of ammunition is undertaken by inspecting Ordnance officers attached to formations. Mobile Ammunition Repair Units are formed as required to deal with repairs in forward areas and to handle captured enemy ammunition dumps. These visit forward units in the division and inspect, repair and advise the units on all ammunition matters.

21. Ordnance Officers' Shop.—The Officers' Shops are allotted under Army Headquarters orders and are usually allotted to

* "Cannibalisation" means removal of useful parts from salvaged vehicles.

Corps/Divisions, hold small stocks of authorized items of officers' and nursing sisters' kit, and provide them on payment in forward areas. These shops are not usually mobile.

22. Mobile Industrial Gas Unit.

Headquarters

Oxygen
Section

Acetylene
Section

Inert Gases
Section

This is essentially an Army Corps unit and provides limited stocks of the gases mentioned above to meet immediate requirements. Where such units do not exist, gases are brought up in cylinders from static gas plants at the base.

23. **Kinema Units.**—They consist of a headquarters and two sections to be allotted to divisions under corps orders and provide all kinema facilities to the formation. Each section consists of two mobile kinema lorries mounted with two 35-mm. projectors.

Section 3. ORDNANCE STORES

24. **Types of Stores.**—Ordnance stores are all items of armament and equipment except those of supplies, fodder and P.O.L. and specialist items provided by other services. The complete range exceeds 5,000,000 items and comprises:

- (a) **Clothing and Necessaries.**—These are provided under Vote 7 of the Army Budget and are, therefore, termed "Vote 7 Stores."
- (b) **General Stores.**—These consist of accommodation stores, accoutrements and technical instruments, tools, fire fighting equipment, anti-gas stores, timber, oils, paints, etc., known as "Vote 8 Stores."
- (c) **Warlike Stores.**—These are all types of weapons, ammunition, vehicles, armament, engineer, signal and artillery equipment, radar, optical instruments, workshop machinery, etc., termed as "Vote 9 Stores."

25. **Controlled Stores.**—The procurement of stores is an M.G.O. responsibility according to the plans outlined by the General Staff Branch. Depending on the availability, the stores can either be available in good quantity or may be in short supply. In the latter case, these stores are controlled by General Staff Branch, who authorize issues to units on operational priority.

Controlled stores are released in bulk by Army Headquarters to

Commands in accordance with deficiencies as shown in Command Quarterly Census Returns. In an emergency, Commands may submit special demands on Army Headquarters between quarterly bulk releases.

26. Indenting for Stores.—The scales of equipment, I.A.F. F980, for each unit are laid down in Peace Equipment Table (P.E.T.) for peace time, and on mobilization for war in War Equipment Tables (W.E.T.). Whenever a unit requires any ordnance items to make up deficiencies or for replacements it has to submit its demands on form I.A.F. G994, known as "Indent," to the C.A.O.C./A.D.O.S. of the formation in which it is located if in war, or directly to the Command depot on which it is dependent in peace.

One copy of the demand, accompanied by two copies of "Schedule of Indents," is forwarded to the issuing Ordnance depot. When the demands have been "controlled"—i.e., allotted a control number—one copy of the "Schedule of Indent" is returned to the unit for information that action is being taken on the demand.

While completing these forms, the instructions on the folder must be meticulously followed. The indents are prepared by the unit quartermaster and signed by the commanding officer or an officer delegated as such by him.

In war, the A.D.O.S., on receipt of the indents, verifies their correctness and satisfies himself that they are according to scale. He then authorizes the issue by stamping all copies of the indents, which are then passed to the depot which has to supply the items.

In peace, the demands are forwarded direct and are registered at the depot.

27. Issue of Stores.—The indent, after it has been received and registered by the Headquarter Section of the depot, is passed on to Control Branch (Indent Branch), where it is sorted, controlled and checked. Six copies of issue vouchers are then prepared and passed to Sub-Depot/Stock Group for making issues.

The stores are properly packed with the contents of each package tabulated in a packing note by the Sub-Depot/Stock Group. When packages are ready, these are sent to Traffic Branch, from where they are dispatched to the indenting unit, one copy of the issue vouchers having already been forwarded to the unit as advance information. If the unit is situated locally it is told to collect the stores.

For items which are not available for issue, an entry is made under "To follow" column on all copies of the issue voucher.

28. Receipt of Stores.—One copy of the vouchers, packed in No. 1 package/bale of the consignment, is sent to the indenting unit along with the stores. On receipt of stores, the contents of each box are checked against the packing notes as well as the “vouchers” by the receiving unit. If the contents are correct, one copy of the vouchers is properly receipted and returned to the depot. If there are any discrepancies, the deficiencies are reported to the depot and a discrepancy is raised against the carrying company if the package/bale is damaged and/or against the issuing Ordnance depot if a short issue has been made. If, due to some reason, the contents of the packages cannot be checked immediately on receipt, the voucher should be endorsed “Not examined” before it is returned to the depot.

29. Return of Stores.—Units and formations return all surplus serviceable and repairable stores to the R.S.S.D. (Returned Stores Sub-Depot) in their own particular area of supply either on the instructions of the Ordnance representative concerned as a result of a condemnation board, or after the inspection, or on the discretion of the unit commander if surpluses are held. All unserviceable stores are returned to the nearest Salvage Depot.

Fired bullets, empty cartridge cases and misfires, condemned crockery and glassware are destroyed beyond recognition in the presence of the condemning officer or board appointed by the unit.

30. Accounting for Stores in Peace.—The quartermaster or any holding officer of a unit maintains a ledger for all items on charge. Whenever an item is received or dispatched, the necessary credit or debit entry is made in the ledger against the item and should be supported by an official receipt, which is numerically numbered, the number being entered in the “Voucher No.” column of the ledger in red ink. All entries must be made as soon as the transaction takes place.

31. Each unit is required to divide its accounts into

- (a) ammunition and explosives,
- (b) M.T. stores and vehicles,
- (c) special items of clothing,
- (d) personal equipment and clothing as follows:

- (i) All personal equipment, arms and ammunition authorized on a “per man” scale on War Equipment Tables, Equipment Regulations or other authority, including both controlled and uncontrolled stores.

- (ii) All clothing and necessities except special items (*vide* (c) above) are shown in a separate account (but excluding extra issue items for winter).

(e) All stores not covered by (a) to (d) above.

32. The ledgers are audited monthly or as often as the commanding officer desires. They have to be checked and balanced whenever the commanding officer, quartermaster or the holding officer is changed.

Balancing of ledgers means that the receipt and issue columns are totalled and the difference is properly accounted for. If there is credit balance, that number of items must be in stores and should be checked by the stock-taking board. The debit entries are accounted for by proper "issue" receipts.

33. Stock-taking boards are held at the close of the financial year—31st March—or whenever there is a change of command or a change of holder. The board physically checks all items and reports any deficiency or surplus. The entries are made in red ink, the date being given, and adjustment is immediately carried out either in the form of "write off" if the deficiency is not due to negligence, theft or unfair wear and tear, or loss statements are prepared.

34. Accounting for Stores in War.—On mobilization the unit changes from peace to war establishment and is equipped according to its W.E.T. The equipment that the unit takes with it on service is "struck off" the respective ledgers and entries are supported by a "Certificate Issue Voucher" signed by the commanding officer.

"Certificate Issue Voucher" is a certificate signed by the commanding officer to the effect that the unit is taking its W.E.T. equipment on service and the surpluses are being left behind with the officer in charge "Rear Party."

The A.D.O.S. of the area issues necessary instructions regarding the disposal to the officer in charge "Rear Party," who, having disposed of the surplus stores, closes the ledgers and forwards them to the local auditor along with all the vouchers.

35. The unit on active service does not keep ledger accounts, but all deficiencies, as they occur, are properly accounted for by either "Court of Inquiry" or "Lost in Action" certificate signed by the commanding officer. The requirements on indent are submitted through the formation Ordnance officer, who forwards the

demand to the Field Ordnance Depot concerned to issue all replacement items, extracting those items for which it is not scaled for initial issues to the Base Depots concerned.

36. Accounting for Stores on Temporary Basis.—Whenever a unit requires stores on loan, as for manœuvre camps or for any special reason, it submits its demand on I.A.F. G994 with the endorsement "on loan" along with a covering schedule, explaining the reason for the necessity of the stores, to the local staff. In cases where stores are required on medical or veterinary grounds, the opinion of the highest local medical or veterinary authority will be obtained and forwarded with the indent. A separate ledger is maintained for stores on loan. Extensions are permitted, but application should reach the formation headquarters concerned before the expiry of the loan period. If further extensions are required, units put in proposals to alter the existing scales of their P.E.T./W.E.T. to retain the items as a permanent feature as part of their equipment. On expiry of the loan period, the unit returns the stores to the issuing depot concerned.

CHAPTER XVI

THE CORPS OF ELECTRICAL AND MECHANICAL ENGINEERS

Section 1. ORGANIZATION

1. **Introduction.**—At the beginning of 1939 the responsibility for the mechanical maintenance of the Army in India was shared by the I.A.O.C., R.I.A.S.C., Sappers and Miners and Tank Corps.

This procedure led to a wasteful use of manpower and material as there was often more than one repair shop in the same station with duplicate sets of associated stores and equipment, and provisioning was divided between Q.M.G. and M.G.O. for complete items and parts of complete items.

The formation of a new Corps was then recognized, and on 1st April, 1939, the R.I.A.S.C. (M.T.) was disbanded and merged with the newly formed workshop branch of the I.A.O.C.

By November, 1942, owing to Japan's entry in the war, the enlargement of the Army in India and extensive increases in equipment, it was realized that separate technical corps on the lines of R.E.M.E. should be raised.

On 2nd March, 1943, the decision was announced to form a Corps of Indian Electrical and Mechanical Engineers, and with effect from 1st May, 1943, the Corps came into existence.

2. **Staff Organization.**—The D.M.E. at Army Headquarters is directly responsible to the M.G.O. for all E.M.E. affairs. He is assisted by two Deputy Directors and an Inspector E.M.E. (Colonel) to ensure the smooth and efficient functioning of the Corps. The organization at Army Headquarters is on page 154.

3. E.M.E. Directorate at Army Headquarters.—Functions of the various sections in E.M.E. Directorate are as follows:

- (a) **M.E.1.**—Officers: Postings, transfers, appointments, promotions, terms and conditions of service, release, retirements, pay and allowances.
Junior Commissioned Officers and Other Ranks: Terms and conditions of service, reinforcements, recruiting demands, welfare, discipline, appeals and petitions, leave policy.
- (b) **M.E.2.**—Civilians employed in the E.M.E.: Pay and allowances, terms and conditions of service, discipline, appointments, promotions, Industrial labour grant-Budgetary control.
- (c) **M.E.3.**—Policy for repair of equipment of the services, Territorial Army and National Cadet Corps and other entitled organizations. Operational planning, raising, reorganization, Orders of Battle, control of E.M.E. manpower, liaison with D.M.T. regarding training and courses. Civilian training, P.E./W.E., building projects.
- (d) **M.E.4.**—Since been amalgamated with M.E.3 (formerly dealing with training).
- (e) **M.E.5.**—Defects, modifications, repair, inspection and maintenance methods in respect of “A” and “B” vehicles, mobile engineer equipment, bridging equipments, armaments, small arms, bicycle, refrigeration, air-conditioning and other equipments.
- (f) **M.E.6.**—Defects, modifications, repair, inspection and maintenance methods in respect of radar, wireless and electrical instruments.
- (g) **M.E.7.**—Preparation of peace and war equipment tables, control of specialist maintenance tools and specialist vehicles, plant and machinery, equipment policy.
- (h) **M.E.8.**—Repair programme and workshop output. Control and allocation of repair load to 4th Echelon workshops. Time and motion study, production methods, quality control of output.
- (i) **M.E. Pubs.**—Production control, editing and classification of E.M.E. publications, distribution of records, control of follow-up demands. Army Headquarters distribution, circulation of periodicals, Technical Library.

- (j) **M.E. Scales.**—Preparation and publication of maintenance scales for all vehicles/equipment in the Army. Scales for overhaul of engines and other equipment, control policy covering scales of spares to be held by units, workshops and Ordnance depots for all equipments for which E.M.E. is responsible for repairs.

4. **Command Headquarters.**—At Command Headquarters the staff is normally composed of the Brigadier E.M.E., one A.D.M.E., two D.A.Ds.M.E. and two staff Captains.

The Brigade E.M.E. is responsible to the D.M.E. for the efficient functioning of the E.M.E. in his command. He has also direct control over the Command workshops.

5. **Army/Corps Headquarters.**—In the field formation of Army/Corps Headquarters there is a D.D.M.E., two D.A.Ds.M.E., a staff Captain and a A.I.A., responsible to Army/Corps Commander and Brigadier E.M.E. for the technical efficiency of all E.M.E. units in the formations. E.M.E. Corps Troops units are commanded and controlled by C.E.M.E. Corps Troops, who in turn is responsible to the D.D.M.E. Corps.

6. **Area Headquarters.**—There is a A.D.M.E. assisted by a staff Captain and in certain areas by a D.A.D.M.E. in addition. The A.D.M.E. is responsible to the Area Commander and Brigadier E.M.E. for the organization and technical efficiency of E.M.E. units under his control in peace areas.

The A.D.M.E. carries out annual inspection of all E.M.E. units in the area and also annually inspects and reports on all technical equipments held by all units of other corps under his jurisdiction.

7. **Divisional Headquarters.**—In the division there is a C.E.M.E. (Lieutenant-Colonel), a Second-in-Command (Major), a staff Captain (Tels.) and a Staff Captain (Adj.). The C.E.M.E. is responsible to the Divisional Commander and the Brigadier E.M.E. of the Command in which located for the efficient functioning of all E.M.E. units and all technical equipments in the division. He carries out annual inspection of all E.M.E. units and ensures that the equipment is always in a state of readiness.

8. **Sub-Area Headquarters.**—Sub-areas may be authorized a E.M.E. Captain, but usually there is no E.M.E. representative on the staff, the functions being performed by O.C. Workshops in the sub-area.

9. **Brigade Headquarters.**—Each brigade is authorized a E.M.E. Captain to advise commander on E.M.E. matters. He controls the Brigade L.A.D.

Section 2. FUNCTIONS

10. **Functions.**—E.M.E. is responsible for the inspection, repair and recovery of all mechanical, electrical, medical, surgical and optical equipments and stores of the Army and the items of equipments of the Navy and the Air Force which are common to the services, with the exception of bridging, railway transportation, constructional, productive and structural engineering equipments of the Corps of Engineers. The Corps is also responsible for the manufacture and repair of artificial limbs and for the inspection and repair of small arms and wireless sets of the civil police. Also for manufacture of stores and spares to such extent as is necessary in order to carry out necessary echelon repairs where supplies are not immediately available from stock or to build up stock, may also be undertaken by E.M.E.

11. **The Echelon System.**—E.M.E. repair tasks of all types have been classified into four echelons or stages which can be described in general terms as follows:

- (a) **1st Echelon.**—Adjustments, minor repairs and replacement of those parts and minor assemblies, the fitting of which can easily be effected by the use of hand tools.
- (b) **2nd Echelon.**—Replacement of major and minor assemblies and repairs incidental thereto, repairs to parts when exchange is impracticable, certain repairs to assemblies when replacements are not available and the situation makes repairs imperative or when repair is quicker than replacement, manufacture of parts declared not available required urgently to put equipments back into service.
- (c) **3rd Echelon.**—Tasks complementary to those of 2nd Echelon—that is, absorption of the 2nd Echelon normal overload and such work as is necessary to remove restriction on the mobility of forward 2nd Echelon workshops in view of the time and labour involved; also repairs to assemblies effected with relatively heavy workshop equipment.

- (d) **4th Echelon.**—Major repair, overhaul and reconditioning of all types of complete equipment, assemblies and sub-assemblies and manufacture incidental to this work.

12. Added flexibility is given to the system by permitting workshops to undertake to a limited extent repairs of a different echelon according to operational necessity. Only in emergencies, however, will higher than normal echelon repairs be undertaken since the scale of workshop equipment and spares is based on normal echelon, particularly in assisting to clear accumulation of casualties. Repair schedules and responsibilities are generally as shown on page 159.

Section 3. TYPES OF WORKSHOP

13. **1st Echelon.**—The responsibility of technical repair in this echelon is shared by tradesmen of user units and the E.M.E. For example:

- (a) Repair of mechanical transport and armaments will in the first place be the responsibility of the unit tradesmen and such E.M.E. personnel who may be attached. Certain formations and major mechanized units are provided with E.M.E. Light Aid Detachments (L.A.Ds.) to assist in more difficult 1st Echelon repairs.
- (b) Repair of wireless and line equipment is the responsibility of the formation signal unit at present. Radar equipment maintenance and repair is entirely an E.M.E. responsibility.
- (c) 1st Echelon E.M.E. units or Light Aid Detachments (L.A.Ds.) are attached as an integral part of each major unit or group of units according to quantity of equipment. They are sufficiently mobile to operate in forward areas with any unit and cannot be divorced without adversely affecting the fighting efficiency of parent units.

14. 2nd Echelon.

- (a) In field formations, 2nd Echelon E.M.E. units operate independently as Divisional, Corps or Army Troops according to the role of the units they support. Certain major units, such as A.S.C. transport companies and anti-aircraft artillery units, are provided with combined 1st and 2nd Echelon workshop facilities. There are three infantry workshop companies in a division.

ORGANIZATION OF E.M.E. FIELD UNITS

E.M.E. Unit	Workshop Echelon	Echelon of repair executed	Composition	Function
U.R.O. (Unit Repair Organization)	1st	Restricted 1st	Unit technical personnel and attached E.M.E. technicians	Minor repair and replacements
I.A.D.	1st	1st	Suitable technical personnel permanently attached to major mechanized units	Assists and advises units on maintenance, minor repairs and replacement and recovery operations
L.A.A. Workshop	1st	1st	Suitable technical personnel and equipment	As above. In addition this unit is capable of carrying out emergency 2nd Echelon repairs
Infantry Workshop Coy., Armd. Workshop Coy.	2nd	2nd	Suitable technical personnel and equipment for repair of armament, small arms vehicles, tanks and wireless, also A.O.C. Stores Section attached	Exchange of defective assemblies and sub-assemblies and repairs incidental thereto
Tpt. Coy. Workshop Secs., types A to D	1st and 2nd	1st and 2nd	Suitable personnel and equipment for repair of vehicles and small arms	As above
H.A.A. Workshops	1st and 2nd	1st and 2nd	Suitable personnel and equipment for repair of vehicles, armaments and telecommunications	As above
Inf. Tps. Workshop, Armd. Tps. Workshops	3rd	2nd and 3rd	Suitable technical personnel and equipment for repair of armaments vehicles, tanks, small arms instruments and telecommunication equipment	Primarily for 2nd Echelon repairs beyond capacity of 2nd Echelon workshops Emergency 3rd Echelon repairs
Base/Adv. Base Workshops	4th	3rd and 4th	Suitable technical personnel and equipment for repair of armaments vehicles, tanks, small arms instruments and telecommunication equipment	Reconditioning of assemblies and sub-assemblies exchanged by 2nd and 3rd Echelon workshops, overhaul of complete damaged or worn equipment
Div./Armd. Bde./Recce. Coy. Indep. Recce. Sec.	1st and 2nd	2nd	Suitable personnel and equipments	Clearing equipment casualties of all natures from units to workshops or back loading points
STATIC UNITS				
Station Workshops	2nd	2nd	Static workshops with technical personnel and equipment for repair of vehicles, specialist components attached as necessary for the repair of small arms armaments, telecommunication and refrigeration equipment (size depends on load)	As for Inf./Armd. workshops, also 1st Echelon repair for units without U.R.O. or L.A.D.
Command Combined Army Workshops	4th	3rd and 4th	Static workshops with technical personnel and workshop equipment	Reconditioning of major and minor assemblies and components returned by 2nd Echelon workshops, overhaul of complete damaged or worn equipment, retrieving of components, manufacture of components whenever necessary.

- (b) In static areas, the normal 2nd Echelon workshops are Station workshops. These workshops carry out repairs to "B" vehicles; some also repair "A" vehicles, and certain of them have specialist "Components" attached for the repair of small arms, armament and instruments, wireless and refrigeration equipments.

15. 3rd Echelon.

- (a) Infantry Troops Workshops and Armoured Troop Workshops carry out 3rd Echelon repair in the field. These are Corps Troops and are allotted at the rate of one per infantry/armoured division respectively.
- (b) In static areas there is NO 3rd Echelon unit.

16. 4th Echelon.

- (a) In the field 4th Echelon repairs are generally carried out by advance Base/Base Workshops. The static 4th Echelon workshops are Army/Command Workshops. Army Workshops are controlled directly by the D.M.E. for technical matters and the Command Workshops by Brigadiers E.M.E. of the Command concerned. Combined Workshops also undertake 4th Echelon repairs, as these workshops are a combination of 2nd and 4th Echelon repairs.

17. Recovery.—The object of recovery is the return of damaged equipment to use by the most expeditious means of repair. Recovery is intimately bound up with repair and must never be considered separately from the repair system.

CHAPTER XVII

MISCELLANEOUS SERVICES

Section 1. THE ARMY PIONEER CORPS

1. **General.**—In peace and in operations it is always necessary to employ labour to execute military tasks. It is the responsibility of the administrative staff to allocate the available labour to the best advantage.

The organization and employment of labour forces is the function of the Labour Officer at all formation headquarters down to the Corps Headquarters. The Labour Officers are either Staff Officer (Labour) authorized on the establishment of the headquarters concerned or are commanders of the Pioneer Groups working in the formation.

2. **Organization.**—There are three sources of labour:

- (a) **Military Labour.**—Can be provided by fighting troops or by Pioneer Groups. Fighting troops should be employed on labour duty only when absolutely necessary, and they are not required for training operations. Pioneer Group supplies the military manpower for labour and should be so located that it can be exploited at the earliest.
- (b) **Prisoners of War.**—Are employed as labour for all tasks except those which are too dangerous. They are “protected” personnel and should not be employed on tasks which have a great risk of life. For security reasons they should not be allowed to work in a “Security” area. All precautions must be taken by staff officers that the prisoners are not able to collect information and escape with it to the enemy lines.

Prisoners of war are organized as a Pioneer Group into companies and sections with varying strengths, depending on the manpower requirement of the task. For such labour the prisoners are paid daily wages according to the rates laid down in the Geneva Convention.

Prisoners-of-war labour, being cheaper and amenable to military discipline, should be used in preference to civilian labour.

- (c) **Civilian Labour.**—Civilian labour can be conscripted, hired or employed for working in ports, installations and depots. In formations where a large number of civilian labour is to be employed, the recruitment and organization is controlled by the Labour Officer of the formation through a provincial civil labour unit (P.C.L.U.), which may be administered by the Pioneer Group on an as required basis.

The rates of pay of labour should be fixed either by a contract or by a provisional committee and should be scaled according to tasks and prevalent economic conditions in the area. A satisfied labour is necessary for efficient working of administrative installations.

3. **Pioneer Group.**—Pioneer Group normally consists of a headquarters and six to eight Pioneer companies, all organized to work independently.

Pioneer companies are organized into a headquarters and four platoons, each consisting of about eighty men. The platoon is the unit of military labour and should not be split further.

Section 2. THE REMOUNT, VETERINARY AND FARM CORPS

4. **General.**—Before mechanization, the Remounts, Veterinary and Farms used to be separate departments under the Quarter-master-General. With the reduction in animal transport units, the three departments were amalgamated into one and placed under one Director.

5. **Functions.**—The functions of the Remount, Veterinary and Farm Corps can be divided into its three main branches:

(a) **Remounts.**

- (i) Procurement of remounts from foreign countries.
- (ii) Procurement of remounts from local sources.

- (iii) Breeding of horses/mules.
- (iv) Control of stud farms.
- (v) Training and handling of animals.

(b) Veterinary.

- (i) Control of contagious diseases amongst animals.
- (ii) Control of mobile veterinary sections and veterinary hospitals.
- (iii) Treatment of livestock.
- (iv) Procurement, stocking and supply of veterinary stocks.
- (v) Meat inspection.

(c) Farms.

- (i) Control of military grass, dairy and poultry farms.
- (ii) Distribution of farm supplies in peace areas.
- (iii) Inspection but not procurement in forward areas.

6. Organization.—The Remount, Veterinary and Farm Corps is a “Q” service and the Director, generally a technical officer from Veterinary Corps, is under the Quartermaster General’s branch at Army Headquarters. It is his responsibility to co-ordinate, direct and control all the R.V.F. Corps establishments.

In Commands he is represented by an Assistant Director of R.V.F. (A.D.R.V.F.) with the rank of Lieutenant-Colonel, while at area/division level there is a Deputy Assistant Director (D.A.D.R.V.F.). In field formations the Army/Corps Headquarters has an assistant director.

The R.V.F. Corps establishments located in the Command are the direct responsibility of the Director at Army Headquarters except for local administration and supervision.

The R.V.F. Corps training centre and school trains veterinary personnel and remounts. It also conducts courses for non-R.V.F. Corps officers and other ranks to teach them veterinary first-aid.

The R.V.F. Corps staff officer attached to formation headquarters, in peace and war, carry out the following duties:

- (a) Adviser to formation commander on all matters concerning health of animals.
- (b) Procurement and distribution of animals to units.
- (c) Prevention of contagious diseases, administration of veterinary establishments/installations and provision of veterinary cover for the formation.
- (d) Procurement and supply of milk through milk depots in certain static areas during war.

7. Treatment and Evacuation of Animals.—In peace stations, veterinary hospitals of different sizes such as Class I, II or branch veterinary hospitals, are formed, depending on the number of animals in the area for treatment.

In the field, treatment and evacuation of animals is organized on lines similar to those adopted for treatment and evacuation of troops.

All animal holding units have a veterinary officer included in their establishment. He establishes the unit animals' sick bay where animal casualties may be held for treatment for periods extending from forty-eight hours to fourteen days, depending on the nature of operations. Animal casualties are evacuated by him to the mobile veterinary sections, which are usually located in the divisional administrative area and do not hold animals for treatment. Their main function is to render immediate treatment and evacuate casualties to Advance Veterinary Hospitals. In static conditions, however, a Mobile Veterinary Section may form sick lines to hold up to twenty-five animals for prolonged treatment.

Advance Veterinary Hospitals are usually located near road/rail head and can hold up to seventy-five animals for treatment for a period not exceeding one month. Casualties requiring longer period of treatment and any overflow are evacuated to Field Veterinary Hospitals, which are located in the base and can hold animal casualties for treatment till full recovery.

Section 3. THE ARMY POSTAL SERVICE

8. General.—In peace all postal requirements of the Army are met by the Civil Posts and Telegraphs Department, which in larger cantonments provide post offices primarily for the use of troops. In war or during emergencies when the civil system breaks down, or in areas where adequate civil postal facilities do not exist, the commitment is taken over by the Army Postal Service.

9. Functions.—The functions of the Army Postal Service are:

- (a) Provision of mail service to and within a formation.
- (b) Carriage of official mail of classification not higher than "Restricted."
- (c) Sale of postage stamps, postal orders and other postal stationery.
- (d) Issue of money orders.
- (e) Registration of parcels and letters.
- (f) Booking and delivery of private telegrams.

10. Organization.—The Army Postal Service is a “Q” service with a Director under the Quartermaster-General at Army Headquarters. It is his responsibility to maintain close contact with various agencies like the movement and transportation directorates, the civil air lines and the Post and Telegraph Department for routing and dispatching of mails.

The Postal Service is manned by Army Service Corps personnel specially selected from the Civil Posts and Telegraphs Department. All ranks of the Army Postal Service require a sound knowledge of the principles and working of the civil postal organization and regulations. Since they have to deal with large amounts of cash and important documents, they are selected for their honesty and integrity.

The Director of Postal Service at Army Headquarters is represented by Deputy Director Army Postal Service (D.D.A.P.S.) at Force Headquarters during war, and by a deputy assistant director at Corps level. In Area Divisional Headquarters the officer commanding the divisional postal unit represents the Director of Army Postal Service.

11. Types of Postal Units and their Functions.—There are four main types of Army Postal Units, and their functions are:

- (a) **Base Postal Depots.**—The depots receive mail from the civil post offices in the country, are responsible for sorting, preparing and dispatching mail by the quickest possible means to the post offices in the field. These post offices act as the nerve centre for the entire postal organization and maintain accurate records of all receipts and despatches.
- (b) **Base Post Office.**—The Base Post Office is a two-way organization. It receives mail from the postal depot and dispatches it to the units, in addition to cross distribution of mail originating within the theatre to units. All mail from the theatre is dispatched to the postal depots for distribution through civil post offices. To ensure that the mail is quickly passed to the correct agency for distribution or disposal it is essential to have arrangements for very speedy and accurate switching of mail. Comprehensive and up-to-date location records must be available. It is the responsibility of the “Q” staff at formation headquarters to inform the Army Postal Service in advance of all moves and changes in location of units.

(c) **Field Post Offices.**—A Field Post Office receives mail from the Base Post Office and other Field Post Offices, and distributes to units directly dependent on it. Conversely it receives mail from units/other Field Post Offices for transmission to Base Post Office/other Field Post Offices for distribution within the theatre or return to postal depots.

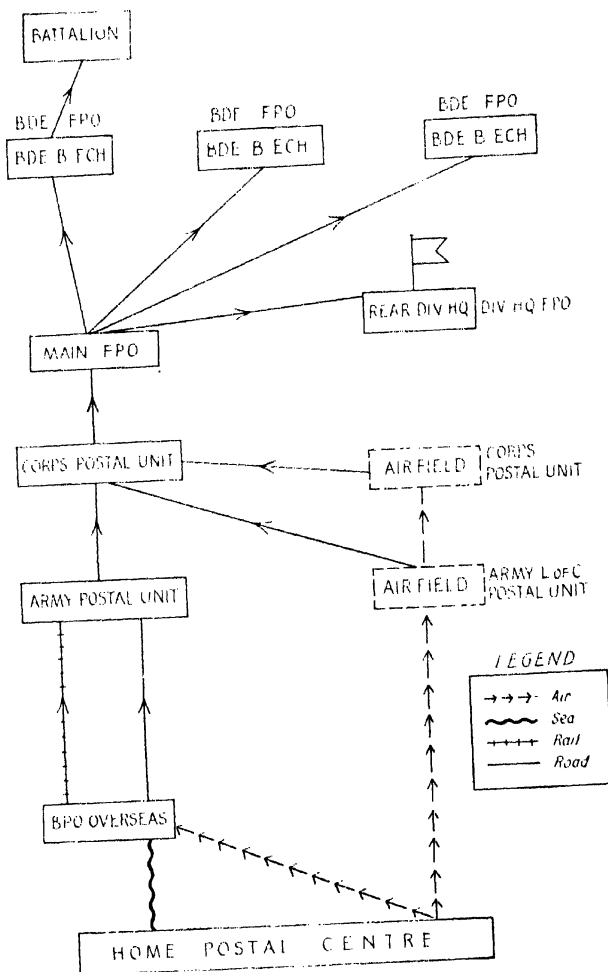
(d) **Divisional Postal Units (Army/Corps/L. of C. Postal Units).**—The Divisional Postal Unit is organized to provide a main post office at Divisional Headquarters and three to four field offices for brigades. The main post office is generally located near the Divisional Rear Headquarters. The Corps Postal Unit is designed to provide a big field post office for the Corps Headquarters and two small field post offices for Corps troops.

The L. of C. Postal Unit is organized to provide up to seven standard field post offices for the important stations on the lines of communications.

12. Delivery of Mail.—The system is shown on page 167. Briefly the system is:

- (a) Mail is dispatched by the quickest possible means by the Base Post Office to Forward Maintenance Area (F.M.A.).
- (b) From the F.M.A. mail for the Army/Corps field post office is conveyed in Army/Corps postal unit or second-line transport.
- (c) From the F.M.A./railhead, mail for the line of communication F.P.Os. is conveyed in transport provided by the local formation.
- (d) From the forward maintenance area mail is conveyed to the field post office by the divisional postal unit personnel in postal or divisional second-line transport. A majority of divisional troops obtain their mail direct from the main field post office.
- (e) Mail for brigade post offices is sorted and sent to them by the divisional postal unit in postal transport.
- (f) Unit postal orderlies collect the mail from the post offices daily at the notified time. At the same time unit postal orderlies hand in mail for dispatch and carry out all postal purchases for the unit.
- (g) Rearward mail is carried back to the main field post office and base post office in the reverse order.

Channel of Delivery of Mail to Forward Troops



13. Post Orderlies.—Every unit should have a mail-bag in which the unit mail is placed. The Post Orderly Book (A.B. 426M) is maintained and preserved by units for three months and then sent to the Record Office for retention for two years. It must be scrutinized by the postal and unit postal officer daily. For this work an intelligent and capable other rank must be selected. He would be responsible for the handling of mail in the unit. Unless the distribution of mail at the unit end is properly organized the whole basis of quick supply is likely to break down and the individuals will not benefit.

14. Duties of the Staff.—The success of the postal service depends on the closest co-operation between “Q” and postal staff and postal units. It is the responsibility of the staff to:

- (a) Inform units of the location of field post offices.
- (b) Inform field post offices of the location of units, changes in location and moves in advance.
- (c) Issue instructions regarding postal policy.
- (d) Assist postal units with transport to ensure quicker despatch and delivery.
- (e) Publicize postal concessions and ensure that these are not abused/misused.
- (f) Ensure efficient functioning of the postal organization.
- (g) Ensure arrangements for clearance of cash from F.P.Os.

Section 4. THE ARMY CANTEEN SERVICE

15. The Army Canteen Service was formed on a permanent basis during World War II with the object of providing groceries, general necessities and other stores which are NOT provided by the Army Supply or Army Ordnance Corps. It aims at providing these stores to the troops at the lowest possible prices compatible with market rates by direct purchases from manufacturers, thus eliminating the middleman profits.

16. Organization.—The Army Canteen Service is a “Q” service controlled by the Chief Canteens Officer under the Quartermaster-General at Army Headquarters. He is assisted by the Chairman, Board of Administration, Canteen Stores Department, which obtains and distributes all stores to serving units/formations.

All units/formations either employ contractors or run their own

canteens to meet their requirements. At lower formations control of Army Canteen Services is vested in the "Q" staff and no Canteen Service Officers are specially provided for the purpose.

17. Contractors.—Canteens can only be run by contractors approved by the Quartermaster-General on the merits of their service, financial integrity, reliability and honesty. These contractors are, according to their financial resources and experience, classified in Class "A" for major formation/station contracts and Class "B" for unit contracts. All contractors are governed by the Institute rules and are bound to abide by them vide the contract agreement entered into by them with the unit/formation. The contractors are required to maintain accurate records of all sales and purchases, which are periodically checked by the units/formations against ground balances to ensure that the canteen stores are not sold to unauthorized persons.

Registration of contractors on the Quartermaster-General's approved list is carried out periodically by instructions issued by the Quartermaster-General from time to time.

18. Supply of Stores.—All canteen stores required by the army are purchased centrally by the Board of Administration, Canteen Stores Department, under the directions of the Quartermaster-General. Stores are held by various depots or station canteens for distribution to units. Stock-holding depots are managed by the Canteen Stores Department and are run on a non-profit basis. Station canteens are run by Class "A" contractors, who are allowed a fixed percentage of profit on retail issues and handling charges on bulk issues to units.

Prices of all stores are fixed by the Canteen Stores Department with the approval of the Board of Control, Canteen Services (India), of which the Quartermaster-General is the chairman. Price lists are published periodically to ensure uniformity of prices and to avoid profiteering.

All stores handled by contractors are obtained from canteen store depot contractors, who are not allowed to deal in other stores. Issues of these stores are restricted to authorized service personnel and their families.

In addition to the supply of grocery and general stores, the Canteen Store Depot also caters for liquor ration of entitled service personnel and occasional supply of hardware, crockery, cutlery and fancy items, depending on the demand from troops.

To obtain their entitled requirements of canteen stores units

submit monthly indents for their detailed requirements to the Canteen Store Depot through normal staff channels. After scrutiny by the staff these indents are sent to the Canteen Store Depot (India) concerned. These depots consolidate the demand of units, and make issues to the units through station contractors in wagon loads—subject to availability of stores.

Unit canteens may run soft drinks/refreshment stalls at the discretion of the officer commanding the unit. Certain Army Supply Corps stores like flour, sugar and ghee can be obtained on payment issue rates at scales prescribed by the Quartermaster-General. Prices of preparations from these stores are fixed by the officer commanding unit.

19. Control of Prices.—Station canteens obtain the requirements of the unit in bulk at wholesale rates from the nearest Canteen Store Depot and reissue to units at wholesale rates plus one per cent. handling charges. Unit canteen contractors in turn sell stores to troops at retail rates. The difference between wholesale and retail rates is fixed by the Canteen Stores Department to allow a fair percentage of profit to contractors and to safeguard troops from exploitation by the contractors.

Copies of the current price list are displayed in all canteens to ensure that troops are not charged in excess of those prescribed by the Canteen Stores Department.

20. Preventive Measures.—To ensure that stores do not find their way into the hands of unauthorized persons, the following measures are adopted:

- (a) All canteen stores are stamped with the words “Canteen Services (India)” before they are placed on sale.
- (b) Copies of invoices for stores dispatched are forwarded as follows:
 - (i) Ex Canteen Store Depot to Station Canteens, to the Station commander concerned.
 - (ii) Ex Central Station Canteen to unit canteens, to the respective Station/Unit commanders.
 - (iii) The stores received are checked against the invoices by the Staff/Unit commanders.
- (c) A proper account of receipts and sales of all canteen stores is maintained by contractors. All sales are supported by cash memos issued by the contractor and signed by the purchaser.

21. Contracts.—The form of agreement to be entered between the station commander and contractor is laid down and the contracting officer must ensure that there is no deviation from the rules and that the interests of the state are properly safeguarded. The contracting officer must always bear in mind that each contract is a legal matter and take legal advice if in any doubt before entering into agreement. All contracts have to be signed by officers of the rank of Lieutenant-Colonel and above and have to be approved by the Quartermaster-General.

PART V

MAINTENANCE

Chapter XVIII. The Lines of Communications Organization.

Section 1. Development of a Line of Communication (L. of C.).

Section 2. L. of C. Organization.

Section 3. Maintenance by Road.

Section 4. Maintenance by Air.

Chapter XIX. The Maintenance System in War.

Section 1. Maintenance in War—General.

Section 2. Maintenance Organization from main base to L. of C. terminal.

Section 3. Maintenance Organization from roadhead to forward troops.

Section 4. Development of lines of communication and movement on it.

CHAPTER XVIII

THE LINES OF COMMUNICATION ORGANIZATION

Section 1. DEVELOPMENT OF L. OF C.

1. **Functions.**—A L. of C. is an area which extends from the advance base port inclusive up to the rear boundary of fighting formations. The rear boundary is the rear limit of the area for which fighting formations are responsible—i.e., normally the rear Army boundary. A L. of C. is developed to provide Army and Air Force field formations with all that they need both for their daily existence and for battle. In outline these needs are provided by:

- (a) Daily maintenance, which is the moving forward from the advance base of average daily requirements.
- (b) Building up and maintaining stocks of all natures at the forward end of L. of C. from which replacements and sudden increased demands can be met.

2. In addition to this, the L. of C. itself must be constructed and maintained, and its effective operation guaranteed. This entails:

- (a) Moving large quantities of construction material and stores for railways, bridges, roads, installations, etc.
- (b) Moving the daily maintenance requirements of the L. of C. troops themselves, both Army and Air Force.

- (c) Building up reserve stocks in the advance base, and forward places where the L. of C. is liable to interruption.

3. There is, therefore, on a L. of C. a continual flow forward of men, animals, vehicles and equipment, daily maintenance requirements of all natures for field formations and for troops on the L. of C. stocks for building up or maintaining forward reserves and constructional material of all kinds.

There is also a flow to the rear of men, animals and material no longer required in the forward areas.

4. Poor communications in a theatre can be improved by the construction of roads, railways, etc. This will probably mean movement of a certain amount of construction material. In any event it will involve a large labour force, either local or imported, which may have to be fed.

5. Three main problems will always face the Army Headquarters:

- (a) The main problems of advance bases, which can be divided into the following—

- (i) Development of the transportation areas (docks and railways).
- (ii) Development of advance base depot areas.
- (iii) When necessary, arrangements for temporary maintenance of the force while (i) and (ii) are being developed.

- (b) The development and protection of the L. of C., which is divided into—

- (i) Efficient layout of the transportation system with particular reference to facilities at transshipment points.
- (ii) The most economical allocation of tasks to movement agencies and arrangements for the effective control of these agencies.
- (iii) Developing forward bases and other force headquarters installations on the L. of C.
- (iv) Organization of command.
- (v) The conflicting demands of defence and administrative convenience.

- (c) The move of the force to the theatre of operations in its correct order. There will always be conflicting demands between "G" demanding speedy arrival of fighting units and "Q" pressing for early arrival of administrative units and for time to get the initial layout on sound basis.

Section 2. L. OF C. ORGANIZATION

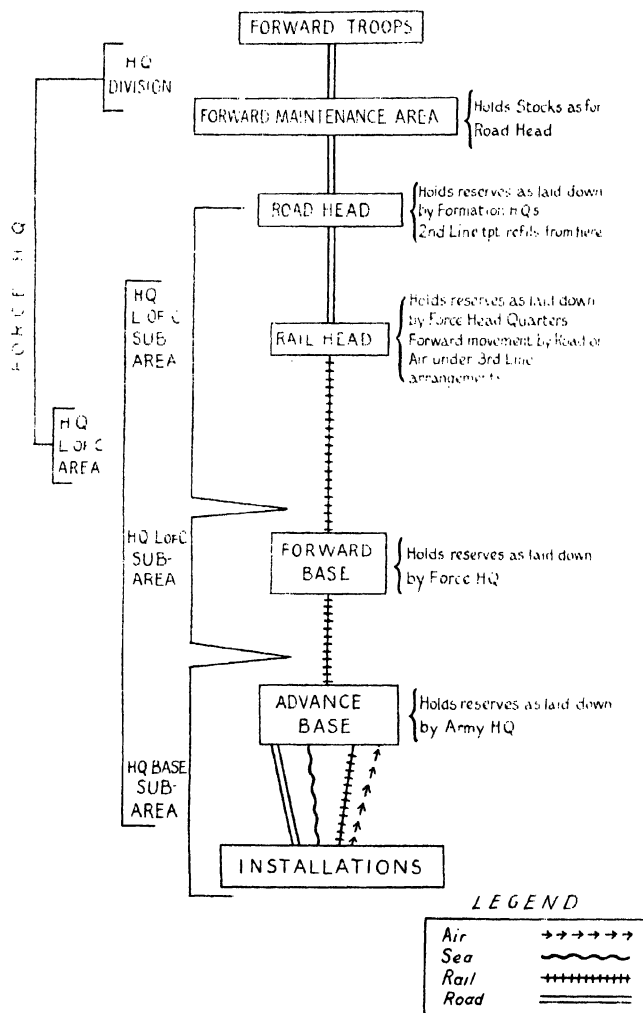
6. Chain of Command.—For the purpose of local administration and protection, the whole territory from inclusive advance base to Army rear boundary (or corps where no Army link exists) is divided into L. of C. areas. Areas are subdivided into sub-areas, the numbers of which depend on difficulties of defence and the amount of general administrative activity. A locality containing important depots, while comparatively small in extent, will usually be organized as a sub-area. On the other hand, another sub-area may extend over a very large area of country which contains few military installations.

7. Commanders L. of C. areas and sub-areas are responsible for local administration, which includes discipline of units located on the L. of C. Local administration includes discipline, accommodation and quartering, provision of water, light and power, care and well-being of personnel and animals, rationing, medical arrangements, sanitation, hygiene, fire protection, maintenance of standing camps, local road traffic control, movement, preventive measures against theft, relations with local population, allocations of local pool of labour, transport, and local protection. In other words, local administration is the business of administering the daily needs of personnel and units.

8. Some important points in the development of an advance base and L. of C. are:

- (a) For economy in transportation resources, the depots and installations should be located near the main routes leading from the base to the zone of operations.
- (b) If enemy action is possible, depots, installations, dumps, etc., must be dispersed and every effort made from the start to secure the base against dislocation from attack by a judicious combination of active defence (against ground and air attack), dispersion, camouflage, concealment and deception.
- (c) Ample room for expansion must be allowed for from the outset. It is impossible to do so later.

Layout of L. of C. Organization



9. H.Q. Base Sub-area generally has the following staff, depending on its importance:

Commander	Base Commander (Brigadier).
"G" Branch	Two G.S.Os. (Captains).
"A" and "Q" Branch ..	A.A. & Q.M.G. (Lieutenant-Colonel).
	D.A.Q.M.G. (Major).
	S.C. "A" (Captain).
	S.C. "Q" (Captain).
Supply and Transport ..	D.A.D.S.T. (Major).
	S.C. (S. and T.) (Captain).
Medical	A.D.M.S. (Colonel).
	D.A.D.M.S. (Major).
	S.C. (Med.) (Captain).
	D.A.D.H. (Major).
Ordnance	D.A.D.O.S. (Major).
E.M.E.	D.A.D.M.E. (Major).
Works	C.R.E. (Lieutenant-Colonel).
	A.C.R.E. (Major).
	Adjutant (Captain).
	Garrison/Assistant Garrison Engineers, supervisors of works, and officer in charge stores (civilians as required).
Provost	D.A.P.M. (Major).
Labour	D.A.D. Lab. (Major).
Land and Hirings ..	Civilian.
	Camp Commandant (Captain).
	Establishment Officer (Captain).

Section 3. MAINTENANCE BY ROAD

10. **The Control of Movement.**—The over-all control of a L. of C. is vested in the force headquarters, but for administrative and tactical convenience the protection and local administration is decentralized to commanders of L. of C. areas and sub-areas. Over-all movement on the L. of C. is controlled by the highest formation headquarters in the theatre. Railways are the normal means of transportation on the L. of C., but in less developed areas more reliance has to be placed on other means of transport—viz., road transport and inland waterways. The characteristic of these are that they individually have small lifting

power and have to be very numerous in quantity to achieve commensurate results. Consequently control becomes more difficult and also more important, since there are ever present risks of congestion and confusion which tend to hamper and even to jeopardize the fighting efficiency of an army.

11. There may be occasions when demands for transport exceed the vehicles available. In such circumstances "Q" staff decides an order of priority of allotment. This may take the form of eliminating less urgent demands, or of allotting varying percentages to the different services.

12. **Road Movement.**—The following are the three main principles on which road transport should be organized:

- (a) **Fluidity.**—Transport should only be reserved for a particular duty when that duty is a daily one and fully employs it, or is so vital that transport must always be set aside for it; otherwise it should be kept available to carry any load that has to be lifted. Generally speaking, as we go farther back from the front, the more can transport be pooled for general purposes instead of being restricted to the carriage of one item—e.g., ammunition.
- (b) **Elasticity.**—The organization must be capable of expansion to meet fluctuating strengths and varying distances. The necessity for a reserve is as important administratively as it is tactically. Also, the original maintenance layout must not be based on transport working at full stretch—e.g., if transport can carry for 100 miles, provision in the first instance might be on a basis of a "carry" of 70 miles, thereby providing the necessary elasticity to meet unforeseen contingencies.
- (c) **Adaptability.**—Means the ability to carry various types of loads. The tendency to multiply specialized vehicles, which can only take one kind of load, must be restricted to essential services and regular lifts. Unnecessary multiplication of type of vehicles militates against quick repair owing to spare parts not being interchangeable.

13. In conformity with the principle of fluidity, road transport on the L. of C. works on a pool basis—i.e., a mechanical transport company carries all types of loads to go forward and is not confined to a single type of commodity. The units provided for this purpose are general transport companies and the term "L. of C.

transport" is used to include all such units working on the L. of C. This transport thus performs the same functions as a railway, in that it is a general carrier of all commodities for all formations and units dependent upon the roadhead.

14. The convoy systems used on the L. of C. are:

- (a) **Through Convoy System.**—Loaded vehicles proceed direct to their final destination without relief. The system is used for stores that are urgently required (e.g., perishables), and for specialized vehicles (e.g., refrigerator lorries).
- (b) **Staging Convoy System.**—Vehicles move forward or to the rear under load one day and return empty over the same stage the following day.
- (c) **Out and Home Convoy System.**—Loaded vehicles move out under load and return empty over the same stage in one day.
- (d) **Meeting Convoy System.**—Two transport columns of equal carrying capacity (but not necessarily of the same type of transport) meet at a fixed point, called the exchange station, where loads are transferred or vehicles exchanged. Each transport column returns to his own post the same day.
- (e) **Omnibus System.**—The vehicle with its load is handed over to another driver after every stage. Vehicle maintenance is carried out by small workshops, established at staging posts.

Section 4. MAINTENANCE BY AIR

15. **General.**—The last war proved the great importance of air maintenance, and it must form an integral part of an army administrative organization and the staff must be properly acquainted with the system of carriage forward of stores, supplies, equipment, etc., either for landing or dropping in the battle area for the replenishment of the fighting troops. The returning aircraft can bring back casualties and prisoners of war.

Air lifts are available very rarely and should be used sparingly. It is therefore essential for commanders to know the principles of air supply and to use them judiciously.

The circumstances in which an air lift can be and should be employed are many and varied. The measuring rod is the opera-

tional necessity and priority must therefore be laid down by the "G" Branch. Air lifts should be employed when no other means are available as it is costly and it has capacity limitations. Air L. of C. is flexible only to a limited extent and dependent on the airfields available. It is most useful when the forces are operating deep into the enemy lines and is the only means of keeping the operations going—e.g., the maintenance by air of the "Chindit" operations in Burma.

In theatres of war where construction of rail and road communications will take long and may prove expensive, air L. of C. may be planned.

16. Factors affecting Air Maintenance.

- (a) Air maintenance is done in transport aircraft, and before they can get through to the forward zones, their protection is an essential consideration. The number of fighter aircraft available and the degree of the air superiority established will determine the possibility of air maintenance.
- (b) Airfields should be suitable for landing. The number of planes that can be landed will depend on the conditions of airfields and how soon they can be constructed. If airfields are not possible, dropping will have to be resorted to.
- (c) Number of sorties that can be carried out depends on the aircraft availability, weather and serviceability of airfields. When airfields are not all-weather, the landings become more precarious.
- (d) The actual load that can be lifted depends on the aircraft and the number of sorties it can do. The carrying capacity varies with the different types of aircraft.
- (e) The load that each aircraft can carry depends on :
 - (i) Distance from rear to forward airfield.
 - (ii) Refuelling facilities at the forward airfield.

17. Principles of Air Supply.

- (a) The success of maintenance by air depends on the closest co-operation between the Air Force and Army. It is therefore necessary that the procedure is clearly laid down, known to the staff of both the Services and meticulously observed.

- (b) Air maintenance is expensive and should be used only when absolutely essential and alternative means are not available.
- (c) The air lift is limited by the number of aircraft available and their limited carrying capacity. It is also limited by weather conditions and the number of airfields from which to operate. It is therefore essential to utilize this limited capacity to the best advantage by advance planning.
- (d) The most economical method of air supply is by landing on airfields. Dropping by parachute and free dropping are very expensive and should be used only in emergency.
- (e) To ensure against interruptions in building up resources in forward areas due to weather and other unfavourable conditions it is essential for plans to be ready before the operations start.
- (f) For air maintenance there must be an independent organization which should be set up both in the rear as well as forward areas to control both ends of the operations. The organization must be in direct and closest touch with the operational staff of the fighting formation. The airfield maintenance organization deals with the collection, dispatch and distribution of personnel, stores and equipment at both ends, and is a highly specialized body.
- (g) Since the greatest advantage of air-lift is speed, it is essential that co-ordination is perfected and all units trained in loading and unloading aircraft.

18. Air Maintenance Organization.

- (a) The planning of air maintenance is carried out by a joint Army and Air Force Transport Organization (A.A.T.O.) consisting of Army staff working in conjunction with the Air Force. It is generally located at Air Force Headquarters. The functions of A.A.T.O. are to—
 - (i) assist the Commander in planning air moves;
 - (ii) allocate lifts to the transport squadron under command;
 - (iii) adjust maintenance plan according to over-all tactical position; and
 - (iv) give aircraft demand to Air Force Headquarters to place them at the required airfields.

(b) The organization in the rear dealing with collection and dispatch as allocated by A.A.T.O. is the **Rear Airfield Maintenance Organization (R.A.M.O.)**. It is located on the airfield and works in close conjunction with the Air Force commander. All Army installations and units on the airfield come under the operational command of **Commander Rear Airfield Maintenance Organization (C.R.A.M.O.)**, and he is responsible for the discipline of Army personnel stationed at the airfield. The function of R.A.M.O. staff are:

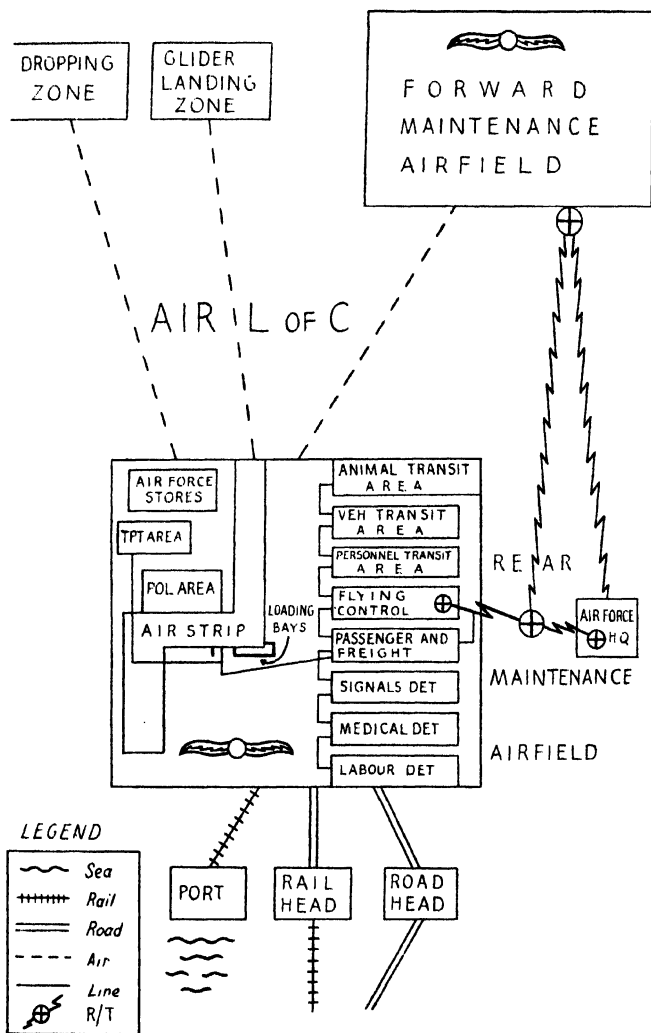
- (i) Liaison with the Air Force and informing them of the number of aircraft required, positioning, and timings of take-off.
 - (ii) Calling forward of personnel from assembly areas and movement of equipment and stores for loading.
 - (iii) Emplaning of all personnel, stores and equipment and preparation of emplaning manifests.
 - (iv) Recording of and reporting to A.A.T.O. the progress of all movements and maintenance.
- (c) **Forward Airfield Maintenance Organization (F.A.M.O.)** deals with the receipt and distribution of personnel, stores, and equipment received at the forward airfields. It comes under the direct command of the formation commander with which it is working and directly controls all the depots in its area. It collects and arranges for rearward dispatch of casualties and prisoners of war.

19. For proper co-ordination the various organizations of air maintenance must be properly linked with wireless and, when possible, by direct telephone lines, so that the least amount of time is wasted in emplaning and deplaning of aircraft.

20. Planning of Air Maintenance.

- (a) The decision to carry out air maintenance will be taken at the highest level. It will always be a joint Army/Air Force decision.
- (b) The A.A.T.O. in consultation with the respective Army and Air Force commanders and staff concerned will submit a combined plan to the sanctioning authority.
- (c) Once the general plan is approved the "G" Branch of the formation, in consultation with "Q," will decide the form and scope of the air maintenance and will place requirements on the Air Force through A.A.T.O.

Layout of an Air L. of C.



- (d) The Air Force is solely responsible for maintenance by air and is responsible for the following:
- (i) Provide and marshal aircraft depending on requirements and availability considerations.
 - (ii) Mark aircraft for different lifts to facilitate emplaning.
 - (iii) Supervise loading and unloading of aircraft and provide lashing and ramps for loads.
 - (iv) Fix take-off timings of the aircraft.
 - (v) Choose the forward airfield in consultation with the Army staff.
- (e) The Army formation commander is responsible for selecting, in consultation with the Air Force, the forward airfield on which planes have to land. When supplies have to be dropped, the dropping zone is selected by the formation staff in consultation with the Air Force Liaison Officer (A.L.O.). (The Glider landing zones are generally selected by higher formation.)
- (f) The Army is responsible for choosing and marking dropping zones (D.Zs.). Since any Army unit may have to be maintained by air in emergency, it is essential that it be trained in marking D.Zs. and arranging for recovery and collections of supplies and collection, packing and quick return of parachutes.
- (g) The F.A.M.O./units will take account of all supplies landed/dropped and keep the R.A.M.O./formation acquainted with the progress. A running chart will be maintained by R.A.M.O. to watch maintenance progress.

CHAPTER XIX

THE MAINTENANCE SYSTEM IN WAR

Section 1. MAINTENANCE IN WAR—GENERAL

1. Maintenance means the process of keeping the forces in the field complete in personnel, animals, vehicles and material. The machinery of administration must provide not only for the rapid replacement of deficiencies in personnel and equipment, but also for the prompt removal of everything not required at the front, such as the wounded, prisoners of war, surplus equipment, etc., and for the repair and reissue of every type of stores.

2. In every campaign, administrative arrangements must be equal to meeting the strain imposed by the tactical plan. The complexity and quantity of modern equipment, the speed of movement of a modern army and the increased vulnerability of the L. of C. to attack by air, long-range projectiles and armoured columns are all complicating factors. Maintenance thus forms an essential constituent of any plan of military operations. The administrative staff officers must therefore be taken into the commander's confidence from the earliest stage of planning. Success will often depend as much on the provision of right kinds and amounts of material at the right time and right place as on the strength and armament of the forces.

3. World War II has proved that there cannot be a rigid drill laid down for the maintenance system as was possible in World War I. The conditions in each theatre and in every operation where our troops may be employed in future will vary considerably and as such the system of their maintenance must be simple and flexible. Whatever the system it must—

- (a) bring troops to battle as fit and fresh as possible,
- (b) supply them with their needs promptly, before, during and after battle,
- (c) evacuate all personnel, animal and vehicle casualties, and
- (d) finish operations in a favourable situation for future maintenance.

Section 2. MAINTENANCE ORGANIZATION FROM MAIN BASE TO L. OF C. TERMINAL

4. **Sources of Supply.**—Stores of all types for the forces in the field are produced at factories, mills, etc., which may be under military control or working to fulfil military contracts. The finished article is dispatched without delay to the military collecting centres. Articles which are not produced indigenously are imported from foreign countries and stocked in reserve bases and are dispatched according to the orders of Army Headquarters, who are in a position to decide the order of priority in which despatches are required and the method to send them forward.

5. The requirements of a force vary considerably with the circumstances of its employment; this applies particularly to the varying consumption of petrol, ammunition and engineer stores. Further, the mechanization of modern army enables rapid and frequent regrouping to take place. These two factors require any maintenance system to fulfil the following two conditions:

- (a) Stocks of major items must be available when required.
- (b) The system must allow of the greatest flexibility.

This necessitates the staff maintaining the closest control and co-ordination of all administrative installations and arrangements.

6. **Maintenance Areas.**—The maintenance system in the field is therefore based on a system of maintenance areas, which are established for two purposes:

- (a) To act as the transshipment area where stores can be transferred from one carrying agency to another.
- (b) To hold a reserve of items on the ground to meet urgent demands.

7. The maintenance areas are of four different types, depending upon their location and the stage of the operations:

- (a) Beach Maintenance Area (B.M.A.).
- (b) Rear Maintenance Area (R.M.A.).

(c) L. of C. Terminal (or railhead, roadhead, riverhead, etc.) Maintenance Area.

(d) Forward Maintenance Area (F.M.A.).

8. **Main Base.**—Where a force is partly or wholly maintained from outside the theatre of operations, that part of the base outside the theatre is called the Main Base. During the last war the main bases of South-East Asia Command (S.E.A.C.) were India and the United Kingdom. The part of the base which lies within the theatre is called the Advanced Base.

9. **Beach Maintenance Area (B.M.A.).**—In the early stages of an amphibious campaign which has to be conducted in the face of enemy opposition, the force is maintained through B.M.As. set up near the assault beaches.

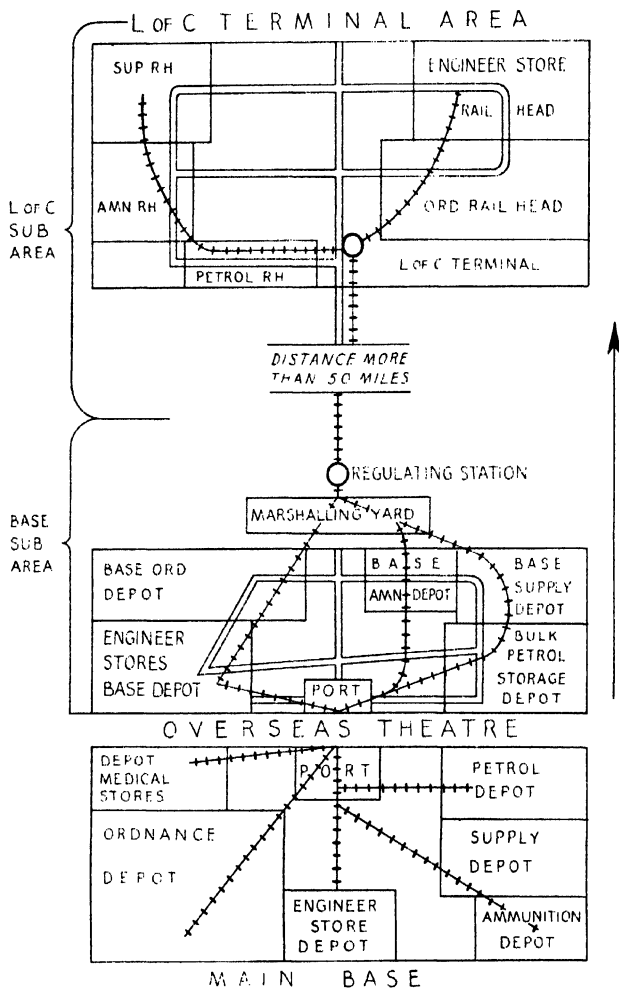
10. **Rear Maintenance Area (R.M.A.).**—Owing to the difficulty of handling heavy stores and dependence on good weather conditions, continuous maintenance across beaches is difficult. B.M.As. are, therefore, replaced by a R.M.A., which is an area containing temporary depots for the maintenance of the force until permanent depots in the advanced base are ready.

11. **Advanced Base.**—The requirements of a modern army are so great that large installations and depots of every type must be established in the actual theatre of operations. In order to bring into the theatre this vast quantity of material, a large port is necessary. The first objective, therefore, of any overseas campaign is the capture of areas to form an Advanced Base.

12. The working of any port is a highly technical matter and is carried out by the transportation service. The area in the immediate vicinity of docks is always full of equipment and installations for the actual working of the docks, and there is never space there for the storage of large quantities of material. The area containing depots and installations must, therefore, be near to, but separate from, the docks. If stores are allowed to accumulate in the docks area, then the working of the port will be slowed up and the port will become dangerously vulnerable to air. The stocks, including the reserves, that are to be maintained in the base depots are laid down by the force headquarters.

13. **Forward Base.**—When the distance between the L. of C. terminal and the advanced base is too great to allow punctual delivery, or the L. of C. is liable to interruption, then it is necessary to estab-

Maintenance Layout from Main Base to L. of C. Terminal



lish a forward base, which is a collection of depots containing sufficient reserves to overcome any interruption or delay on the L. of C.

14. L. of C. Terminal Maintenance Area.—All personnel, vehicles and stores pass from the advanced base forward along the L. of C. to a point where they are handed over to Army transport. In order to effect this transfer and to ensure that stocks are always available from which Army can draw, it is necessary to establish a maintenance area, which consists of depots holding stocks of all commodities. These depots are stocked by force headquarters and are controlled by Army Headquarters. The movement agencies along the L. of C. may be rail, road, inland waterways transport, or air, or any combination of them. A L. of C. Terminal Maintenance Area may, therefore, contain any or all of the following:

- (a) Railhead.
- (b) Roadhead.
- (c) Inland water transport head.
- (d) Airhead.

15. Railhead (R.H.).—Railhead is not necessarily the end of the railway; it is the furthestmost forward point to which stores can be carried by train. If possible there should be separate railheads for supplies, ammunition, petrol and engineer stores and possibly for tanks, depending on the railway layout. The same principles apply to the layout of railhead as to the layout of an advanced base in that all depots must be clear of the transportation area.

16. The siting of the railhead requires careful consideration of the technical and military factors involved.

(a) Technical considerations are :

- (i) General position regarding locomotive depots, junctions, long sections.
- (ii) Availability of communications for the control of railway operation.
- (iii) Availability of water, maintenance facilities.
- (iv) Adequacy of sidings and the general layout of a station.

(b) The military factors are :

- (i) Location of forward troops.
- (ii) Protection from enemy action.

- (iii) Suitability for the purpose in view with a minimum of alteration.
- (iv) Location with a view to the reduction of the work of the road transport organization to a minimum.

17. Roadhead (Rd. H.).—A roadhead may be established either in the same area as a railhead to supplement it or forward of a railhead when it is not possible to deliver to Army transport by rail. In the latter case L. of C. transport carries forward from railhead to Army roadhead and the latter forms the L. of C. terminal maintenance area and NOT railhead. Roadhead is thus the place at which the forwardmost depots on a road L. of C. are located, and where the L. of C. ends. At this place the responsibility for the carriage of stores passes from L. of C. transport to formation transport.

Section 3. MAINTENANCE ORGANIZATION FROM ROADHEAD TO FORWARD TROOPS

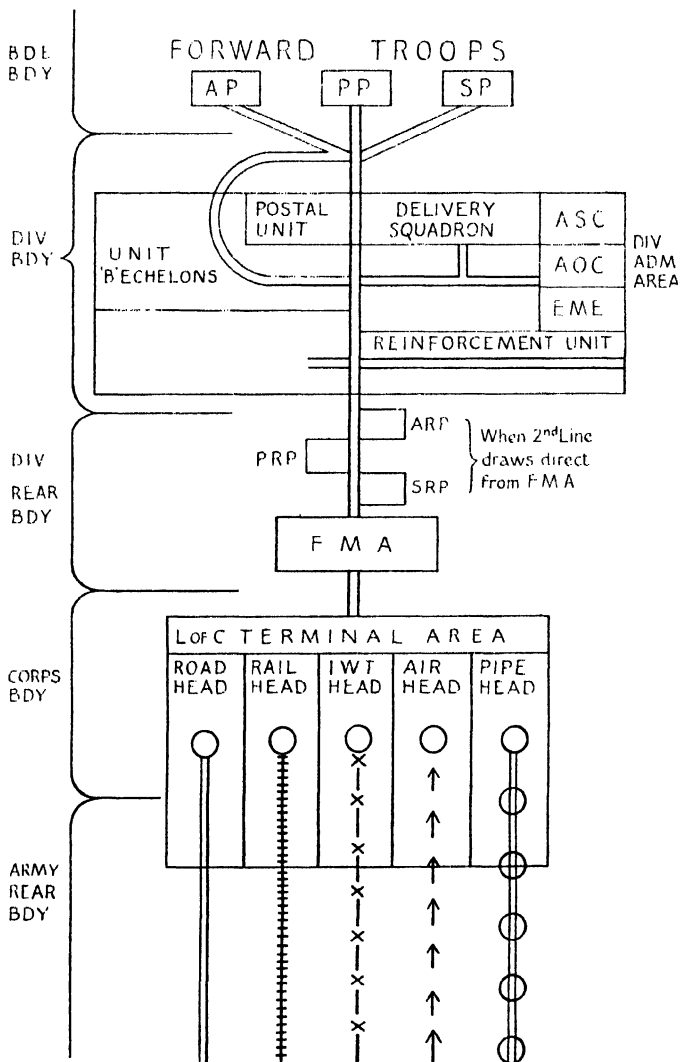
18. Maintenance Organization.—The maintenance organization necessary between roadhead and the forward troops is determined by the distance between the roadhead and the forward troops. The aim is to have the minimum number of transport links, bearing in mind always that the supply forward of commodities must be uninterrupted. The following cases may occur:

- (a) Second-line transport can lift forward to points from which units first-line (B Echelon) transport can collect. This is the simplest case and the only problem involved is the location of the transfer point.
- (b) The distance from roadhead to forward troops is so great that stocks have to be located forward of roadhead at a point from which second-line transport can draw.

19. Second-line Transport drawing from Roadhead.

- (a) **Bulk Breaking Point.**—Formation second-line transport draws commodities in bulk from depots or roadhead. These depots are, therefore, known as Refilling Points (R.Ps.) for second-line transport—e.g., the field supply depot at roadhead becomes Supply Refilling Point (S.R.P.). These loads have to be split up into unit packets before they can be collected by unit transport. This splitting of loads is usually done in the divisional second-line transport area, which is in the divisional administrative

Maintenance Layout from L. of C. Terminal to Forward Troops



area. The process of splitting bulk into unit loads is known as breaking bulk and the area where it occurs is called the Bulk Breaking Point (B.B.P.).

- (b) **Transfer to Unit First-line Transport.**—If the divisional administrative area is within the turn-round of unit first-line transport, then unit first-line (B Echelon) transport collects its requirements from the B.B.P. in the divisional administrative area. If, however, the divisional administrative area is not within the turn-round, divisional second-line transport takes unit loads forward to commodity points, where the transfer to unit first-line transport is effected.

20. Second-line Transport unable to draw from Roadhead.

- (a) **F.M.A.**—When the distance between roadhead and the forward troops is so great that divisional second-line transport cannot go back to roadhead to refill, it is necessary to establish an area, in which stocks are held, from which second-line transport can draw. This area is called a Forward Maintenance Area (F.M.A.), and contains small temporary depots or dumps of commodities.
- (b) In addition to the factor of distance, a F.M.A. may be established for the following reasons:
- (i) To have a reserve within easy reach of corps to meet sudden fluctuations or demands caused by switching over of own formations or by enemy action.
 - (ii) To provide for offensive operations, holding stocks which will not be used until the operations start.
 - (iii) To enable provision to be made for an advance by stocking another F.M.A. farther forward while divisions continue to draw from the already established F.M.A.
 - (iv) To ensure that the commander has maintenance reserves immediately available.

21. F.M.A. Stocks.

- (a) Stocks to be held in a F.M.A. are laid down by the Corps concerned subject to approval by Army, after considering the following factors:
- (i) Anticipated rate of expenditure.
 - (ii) Distance and turn-round time from L. of C. terminal.

- (iii) Conditions and availability of transport and inter-communications.
 - (iv) Facilities for handling and holding.
 - (v) Period for which F.M.A. will be required.
- (b) It should seldom be necessary to exceed:
- (i) Ammunition: Two second-line lifts for each formation and corps troops.
 - (ii) P.O.L.: 75 miles for armoured formations, 50 miles for others, including corps troops.
 - (iii) Supplies: Two days (non-cooking).
 - (iv) Ordnance: Selected items for specific operations.
 - (v) Water: Two days at one gallon per head (in desert and jungle country or where the water system has been destroyed or polluted).

22. Administrative Area.

- (a) **Administrative Grouping.** — Administrative units, and elements of administrative units whose task in battle does not necessitate their functioning in the forward battle area, are formed into an administrative group and placed in an area in rear of the forward battle area. This area is known as the Administrative Area. Mobile operations necessitate a system of all-round area defence, therefore every administrative unit and group must be organized, equipped and trained to fight and move tactically.
- (b) The object of a divisional administrative area is to reduce the amount of transport in the forward areas, facilitate communications between divisional headquarters and units, co-ordinate the defence of the latter, and provide a reception area for reinforcements and replacements. The administrative group of a division normally consists of the B Echelons of fighting units when not in a brigade area, field park squadrons, A.S.C., A.M.C., E.M.E. and postal units. In addition, it may contain left out of battle (L.O.B.) personnel, reinforcements, vehicle and equipment replacements.

23. **Layout of Divisional Administrative Areas.**—Administrative areas may be laid down as follows:

- (a) In brigade and divisional troops, groups, based on one A.S.C. company servicing the group, with the A.S.C. Company Commander as O.C. of the area sub-allotted to it.

- (b) On a service basis to facilitate control by heads of services.
- (c) A compromise between the above two methods—e.g., a medical area, with remainder of administrative groups concentrated into brigade and divisional troops sub-areas as in (a) above.

24. **Command of Administrative Areas.**

- (a) There must be a separate commander and staff responsible for defence, organization and moves of an administrative area. As no establishment for a commander exists, an *ad hoc* commander must be nominated.
- (b) The duties of the commander of an administrative group include the reconnaissance for the administrative area, ordered by the staff, sub-allotment of administrative area, co-ordination of the defences of the administrative area as a whole and organization for its move.

25. **Intercommunications.**—The staff are responsible for ensuring that adequate intercommunications are provided, which are normally required between

- (a) formation H.Q. and its administrative group and
- (b) rear division and rear corps.

It is undesirable and impracticable to limit administrative intercommunication to wireless sets in the administrative pool. Wherever possible, all channels of intercommunications should be used for intercommunication within the administrative group. Use should be made of line communication wherever possible.

26. **Siting.**—The area is laid down by the higher formation and linked on a definite plan. Normally in attack it should be well forward immediately behind forward troops, about eight miles in defence or, in a withdrawal, they should be well back, about twenty miles or over. The limiting factors are the tactical situation, topographical factors, such as routes, bridges, defiles, and intercommunications.

PART VI

MOVEMENTS

Chapter XX. The Movement Organization.

Section 1. Organizational Set-up.

Section 2. Characteristics of Movement Agencies.

Chapter XXI. Movement by Road.

Section 1. Road Moves.

Section 2. Marching on Foot.

Section 3. Moves by A.T.

Section 4. Moves by M.T.

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Chapter XXII. Movement by Rail.

Section 1. Organization.

Section 2. Rail Move Drill.

Section 3. Military Forwarding Organization (M.F.O.).

Chapter XXIII. Movement by Sea.

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CHAPTER XX

THE MOVEMENT ORGANIZATION

Section 1. ORGANIZATIONAL SET-UP

1. **General.**—In peace and war it is necessary to move troops and stores for administrative and operational reasons. It is necessary that they be moved by the quickest and the cheapest means in keeping with strategic and tactical requirements and, of course, depending on the means of communications available.

For any move, considerable arrangements have to be thought of, planned and arranged before, during and after the journey.

These arrangements become complicated when different methods of transportation—by sea and land—are involved in the same move.

For moves of large formations over limited lines of communication, the planning becomes more complicated and requires detailed co-ordination at the highest level.

2. Any organization for a move has to cater for:

- (a) Movement arrangements, which include policy decision regarding route to be followed, means of transportation and staff arrangements regarding movement orders, and liaison with the civil authorities concerned.
- (b) Movement discipline, which includes everything that concerns the welfare of troops in transit and implementation of orders laid down by the movement staff.

While it is the responsibility of the commanding officer of the unit to ensure that movement discipline—such as the fitting of equipment for road parties, vehicles to the mile in road moves,

deck drill for sea voyages and weight limitations in air travel—is good, it is the function of the Movements Directorate to make movement arrangements.

3. Movement Directorate.—The co-ordination of all moves by land, sea and air is carried out by the Movement Directorate—a part of Quartermaster-General's Branch at Army Headquarters.

The Director of Movement is a Brigadier, who is responsible for conducting all moves ordered by C.-in-C. by land, sea and air. He has separate sections dealing with the various agencies of transportation, for co-ordinating them and for allocating the necessary transportation facilities.

The Director of Movement is also responsible for the control and co-ordination of the transportation service if a separate director is not functioning. He is also responsible for traffic control arrangements.

While Movement Directorate is responsible for co-ordination and control of the various transportation agencies, the transportation services are responsible for their actual operation.

In peace the Movement Directorate generally uses Civil resources for conducting the various moves, while in war, and particularly in enemy country, all agencies are taken over by the transportation services, who operate them for military purposes.

In peace the civil transportation services must pay more attention to their civil customers and give them priority, but in war the military gets preference. The military authorities must understand the dual obligations of the civil agencies and assist them in their fulfilment. Proper co-ordination between the civil and military movement authorities at all stages is essential.

4. Movements in Peace.—The rules for the transportation of troops and stores in peace time are laid down in Passage Regulations. These moves may be:

(a) **On Duty.**—While travelling on duty on permanent transfer, the individual is entitled to:

- (i) Officers: Three first-class fares.
- (ii) Junior Commissioned Officers: Warrant.
- (iii) Other Ranks: Warrant.

(b) **On Temporary Duty.**

- (i) Officers: One and a half first-class fares.
- (ii) Junior Commissioned Officers: Warrant.
- (iii) Other Ranks: Warrant.

(c) On Annual Leave.

- (i) Officers: Free warrant to destination alternate years. Other years free concession up to 600 miles both ways plus form "D" for Lieutenant-Colonel and below.
- (ii) Junior Commissioned Officers: Warrant once every year.
- (iii) Other Ranks: Warrant once a year.

(d) On Casual Leave.

- (i) Officers: Form "D," for Lieutenant-Colonel and below only.
- (ii) Junior Commissioned Officers: Payment of one-way fare for both journeys.
- (iii) Other Ranks: Payment of one-way fare for both journeys.

5. The scales of baggage entitlements of units or individuals that can be carried at Government expense are laid down in Passage Regulations as amended from time to time.

The requirement of transport for moving the accompanied baggage is submitted to the local transport officer/movement control officer.

6. **Movements in War.**—All movements of men and material in operational areas are carried out on warrant. No payments are made and the debits for these moves are raised by the agencies employed against the defence budget.

An "on warrant" individual is not entitled to any travelling allowance, but gets daily allowance as follows:

- (a) Officers: According to ranks as laid down in Passage Regulations.
- (b) Junior Commissioned Officers: Rs2 per day as ration allowance.
- (c) Other Ranks: Rs2 per day as ration allowance.

7. In case of necessity, the Government can requisition the services of civil transport agencies for military purposes.

8. **Movement Authority.**—All moves of individuals or parties on warrants, either on permanent or temporary duty, must be supported by a written movement order issued by competent authority.

Only Army Headquarters can permit inter-command moves, while moves between areas are sanctioned by respective Com-

mands. Local commanders can authorize moves within their own areas of jurisdiction as laid down by higher authorities.

9. The Movement Order must give the following details:

- (a) Person or party to move.
- (b) Place of origin.
- (c) Destination.
- (d) Time of departure.
- (e) Duration of move.
- (f) Means of transportation.
- (g) Purpose of move.
- (h) Authority for the move.

10. The commanding officer is responsible to ensure that all parties have the necessary authority, travel vouchers according to the type and form of move, and necessary funds to pay for incidental charges.

Before the move, the commanding officer should inform the movement authorities or the agencies involved as to the time and date of departure so as to make proper arrangements. It is necessary to tie up these details well in advance, otherwise the parties/individuals are likely to be delayed in transit.

When the units are to move from one Command to the other, the commanding officer should send a "strength Return" to Movement Directorate, Army Headquarters, to enable it to arrange transportation facilities, and "Marching Out" report to the new Command to make reception arrangements. Copies of Movement Orders, giving the dates, time and place of halt *en route*, are intimated to all concerned by Movement Directorate, Army Headquarters, to make necessary arrangements.

When possible, outgoing units should send small advance parties to the new destination to make necessary administrative reception arrangements.

11. Move of Families.—The conditions under which the families of officers, junior commissioned officers and men are entitled to travel at the expense of the State, and the concession available, are laid down in Passage Regulations and in Army Instructions.

Section 2. CHARACTERISTICS OF MOVEMENT AGENCIES

12. Road Transport.

- (a) Very flexible.

- (b) Relatively small carrying power of individual vehicles, with the result that—
 - (i) Large numbers of drivers and vehicles are required to attain high capacity, and
 - (ii) they are more suitable for distribution in detail than in bulk.
 - (c) Roads can carry a large number of vehicles, but only if properly controlled.
 - (d) Roads require a great deal of maintenance if they are to take heavy traffic; new construction is slow, requiring large quantities of material and labour and expansion is, therefore, limited.
 - (e) Climatic conditions affect the speed of movement and limit the endurance of personnel.
 - (f) A sound system of repair, recovery and maintenance for vehicles and rest for drivers is essential.
 - (g) Comparatively invulnerable to air attack due to ease of dispersion and concealment.
13. There are two general systems of running road transport.
- (a) **Convoy System.** — Vehicles travel in convoys or controlled columns of five or more vehicles, at a prescribed density and speed; timings for entry to the road are ordered for each column or unit. This is the normal basic method.
 - (b) **Free-running System.**— Vehicles travel individually, or in groups up to ten vehicles, at best possible speed and density.
14. **Railways.**
- (a) Train is a large unit of load.
 - (b) Have very little flexibility. Delays and heavy demands in material involved in expansion.
 - (c) Have large carrying power if well organized.
 - (d) Highly centralized control is essential.
 - (e) Railways require an efficient signal system, exclusively reserved to them.
 - (f) Have high average speeds over long distances.
 - (g) Are comparatively invulnerable to air attack except at focal points and installations.
15. **Inland Water Transport.**
- (a) **Advantages.**
 - (i) Large carrying capacity of craft and thus useful for carrying bulky stores.

- (ii) Economy of power.
- (iii) Reduction of losses by breakages, etc.
- (iv) Often only practicable means of communication.
- (v) Flexible to the extent that units can be switched to operate where suitable waterways exist.
- (vi) Smooth movement for casualties.

(b) Disadvantages.

- (i) Speed is very slow.
- (ii) Liable to vagaries of tides and weather.
- (iii) Expensive in operating personnel and escorts. In the absence of escorts, pilfering is usually on a large scale.
- (iv) Vulnerable from the air.

16. Sea Transport.

- (a) Ship is a large unit of load.
- (b) Flexibility and power of expansion.
- (c) Proper harbour and dock facilities necessary for efficient working or a good road-served beach in the case of landing-craft.
- (d) High rate of loading and discharge and quick turn-round.
- (e) Vulnerable to air attack, particularly at focal points and when berthed.
- (f) Facilities only required at terminals.
- (g) Is the cheapest mode of transport yet available.

17. Air Transport.

- (a) Single aircraft are small units of load.
- (b) Very high speed, quick turn-round; therefore, when used collectively, aircraft are capable of considerable and sustained lifts.
- (c) Very flexible, depending upon landing grounds unless loads can be dropped. Dropping introduces difficulties and parachute equipment reduces useful load of aircraft. Dropping also involves a large expenditure of skilled labour on packing.
- (d) Vulnerable unless escorted.
- (e) Completely independent of terrain between terminals and, to a large extent, of enemy dispositions.
- (f) Very susceptible to weather conditions.
- (g) Requires large maintenance organization.
- (h) Requires a highly centralized and integrated Army/Air Force control.

CHAPTER XXI

MOVEMENT BY ROAD

Section 1. ROAD MOVES

1. **Types of Road Moves.**--Depending on the terrain and conditions of the roads, movement by road can be carried out by:

- (a) Marching on foot.
- (b) Animal Transport (A.T.).
- (c) Mechanical Transport (M.T.).

Whichever method is adopted it is essential to ensure that troops and stores get to the desired place at the required time. This requires careful calculation of time and weight factors and should be centrally controlled by the "Q" staff.

Where troops and stores are to be moved for a particular battle, the priorities must be laid down by "G" staff, and "Q" becomes responsible for the provision of transport and accomplishment of the task allotted. To influence the battle it is necessary that movement must be organized by the quickest means, and "G" staff should ensure the security of the L. of C. so that mobility is not affected.

Section 2. MARCHING ON FOOT

2. It is necessary to march units on foot either for tactical reasons to join battle or for concentration. For tactical moves it is necessary that the road space for troops and transport accompanying them is properly distributed.

Each unit has first-line transport, which for tactical moves is organized in two echelons:

"A" Echelon: Ammunition and reserves as required for battle.

"B" Echelon: Stores and equipment not required immediately for battle, but must accompany unit.

The order of march is laid down by the higher formation according to tactical situation.

3. In case of moves by road when different types of transport are employed—e.g., armour, vehicles and A.T.—it is advisable to march them by separate routes, if possible. Infantry units as far as possible should move self-contained with their first-line transport, but in case it cannot accompany them, then the marrying-up places must be determined in advance according to tactical dispositions. Intercommunication must be established between the infantry and transport column moving by different routes.

4. Where infantry is not marching to join battle but for concentration, and if time is not imperative, the comfort of troops, halts and hot meals must receive due consideration.

5. Stores can also be man-handled and carried by porters, but this is very uneconomical as they can carry a very small quantity. If their employment is essential, it is necessary to arrange halting, feeding and collecting places for them. For security purposes, it may be necessary to provide escorts where local civilian labour is employed.

6. **Unit Parties.**—For any move it is necessary to organize the following parties:

(a) **Advance Party.**—This precedes the main column and reconnoitres the camping area and prepares it for staging. Provost and representatives of major units in the column and the medical service should be included. The advance party must be kept to the minimum.

(b) **Rear Party.**—This is left behind in the place which is being vacated by the unit moving out for proper handing over and for leaving the area clean and clear.

7. **March Discipline.**—For long marches, time and distance details require careful organization. The following points should be borne in mind:

(a) The warning for the move of the column should be given as early as possible to enable units to prepare loads for the move. The distance and number of halts for the night should be intimated so that units can make necessary administrative arrangements.

(b) **Preparations for the Move.**—All men must be properly equipped and should carry haversack and reserve rations as laid down. The baggage parties should be detailed separately and should be organized by the unit representative. The transport should be marshalled and, in case of large moves, should be distributed into groups.

(c) **Pace and Halts.**—For long marches it is necessary to keep to normal marching pace. Arrangements must be available for picking up stragglers. At a normal pace infantry can cover about two and a half miles per hour, including the routine halts of ten minutes per hour. For long marches over fifteen miles there must be a long halt, and this can be suitably arranged at feeding time. When halting, congested places like towns and bridges must be avoided, otherwise it would be very difficult to disperse in case of an air attack.

The advance parties moving ahead prepare the necessary water and feeding facilities at the halt. Through good unit *Bando*, the units can have hot meals served during the long halt and on arrival at the camp. Nothing is more refreshing than a hot cup of tea after a long march, which can be easily arranged.

(d) **Transport and Supplies.**—In case the infantry and transport are moving by the same route it may be necessary to clear the road for moving forward of supplies. Road clear periods are laid down in the Movement Tables, and units must ensure that men, animals and M.T. when halted are kept clear of the road.

(e) **Billeting.**—Troops halted for the night should be bivouacked/billeted in the order of march for the following day—i.e., those moving first should be halted at the top of the billeting area for the night.

The advance party should mark the billeting area and allocate the places for urinals, latrines and cook-houses. The camp, as far as possible, should be away from congested areas.

The rear party should rejoin the unit at the night halt and report to the Column commander on arrival of the complete party.

Section 3. MOVES WITH ANIMAL TRANSPORT (A.T.)

8. Moves with A.T. can be organized on "pack" or "draught" basis. On an average, A.T. can do sixteen miles per day, and the rate of movement for "pack" and "draught" is three miles in an hour (m.i.h.) and two and a half m.i.h. respectively. This is slow going and is liable to decrease further if the country is difficult and gradient steep. The terrain also affects the weight that can be carried. On reasonable going, a mule can carry 160 lb. plus the unexpended portion of the day's ration. An A.T. cart carries ten maunds.

9. The rations for the animals have also to be carried by the animals, thus reducing the carrying capacity and entailing a long column of march. The animal rations are very bulky but have to be carried on long marches as the animals cannot work for any length of time on iron rations. Animals quickly lose condition and become unfit.

10. **A.T. Regiments.**—In view of the universal use of M.T. the use of animal transport has become exceptional. The A.T. resources are, therefore, centralized and allotted to Command/Corps on "as required" basis.

An A.T. Regiment can provide first- and second-line transport for one brigade group. The animals of a draught company can also be used for pack when required.

11. When converting the draught company to pack, it must be borne in mind that the former has only one mule leader for two mules, while in pack one per animal is provided for.

Where the mules are carrying only the unexpended portion of ration for the day, the company can carry: $600 \times 2 = 1,200$ maunds.

In longer marches the A.T. Regiment Convoy has to carry its own "domestic" load, which automatically reduces the "Useful load" that it can carry. The requirements of mules can be worked out by the following formula:

$$\text{Total mules required} = \frac{\text{main load} \times (\text{total}) \text{ animals per unit}}{\text{total working animals} \times \text{one animal load} - \text{unit's domestic load}}$$

12. **March Discipline.**—A.T. Regiments are A.S.C. units and the drivers' only responsibility is to hold and lead the mules. It is the responsibility of the unit concerned to pack and load the mules.

On the line of march the loads will be readjusted as required and the mules pulled clear of the track for this purpose.

Section 4. MOVES BY M.T.

13. **General.**—Due to its manœuvrability, capacity and mobility, M.T. is largely used for all types of moves, strategical and tactical. Large formations can be quickly moved from rear areas to battle zones, thus turning the fortunes of battle. Stores can be quickly moved forward from railheads and depots, and battle casualties can be evacuated, thus maintaining the tempo of war.

The M.T. with a formation is divided into three categories:

- (a) **First Line.**—Unit M.T., which carries the unit fighting equipment and stores and cannot be used for troop-lifting or moving stores.
- (b) **Second Line.**—This transport allotted to the formation is necessary for its maintenance and should not be diverted for troop-carrying or lifting stores, otherwise the maintenance of the formation in battle will be jeopardized.
- (c) **Third Line.**—Transport for troop-lifting or moving of stores is allotted by Army Headquarters to the formation on “as required” basis.

14. The standard General Transport (G.T.) Company can lift the marching personnel of an infantry brigade. Each company consists of three platoons capable of lifting the personnel of one infantry battalion.

15. **Limitations in the use of M.T.**—The extent to which troops and stores can be moved by M.T. depends on:

- (a) **Availability of Transport.**—The tonnage that can be carried forward depends on the actual number of vehicles on the road. The greater the availability, the heavier the tonnage moved, and it is for the “Q” staff to keep a careful watch on the repair and maintenance organization and to ensure that the maximum number of vehicles is put on the road.
- (b) **Condition of Road.**—The suitability of the road affects the pace at which the vehicles can travel, thus affecting the turn-round and also the carrying capacity, which will be according to the type of vehicle which can be used on the worst part of the road.

A careful road reconnaissance with exact details of load capacity of bridges, marshalling areas, crossing places must be carried out in advance, and “Q” staff should prepare movement charts and tables accordingly.

Depending on the condition, road gradient and surface, three-ton vehicles can carry approximately two and a half tons of useful weight.

Total tonnage lifted = total number of vehicles \times tonnage per vehicle.

For long runs each vehicle has to carry a "domestic" load of tools, petrol and kit, and therefore

Useful weight = weight capacity — domestic weight.

If each vehicle has to carry petrol for the complete turn-round and the distances involved are long, the "useful" weight will be considerably reduced.

The number of vehicles that can be put on the road at one time depends on the road space and the varying pace of the various types of vehicles involved. On fair roads a M.T. column by proper control can cover twelve miles in the hour during daylight and during the night almost half, unless lights are used, when it can go up to ten miles in the hour.

If the road is a one-way road, the space for movement forward would be halved if the other half is necessary to clear the returning convoy. For proper use of road space the "Q" staff have to prepare detailed timings, which are given out in Movement Orders.

- (c) **Petrol Supply.**—To keep the wheels moving it is necessary to have petrol stocked at convenient places, if long distances are involved; petrol carried in addition to full tanks affects the useful load of the vehicle and should not be done unless replenishment of tanks is impossible.
- (d) **Drivers.**—The number of hours that a driver can drive his vehicle is limited. Even with a second driver to change over, he wants to get out of the vehicle and rest. The driver requires time for the maintenance of his vehicle, and unless this is allotted the vehicles will be off the road through accidents and breakdowns. Apart from the considerations of daily turn-round, the drivers and vehicles must be given one clear day in seven for rest and thorough inspection of vehicles.

16. **Planning of M.T. Moves.**—To make the most use of the available M.T. resources and the road space, it is necessary to organize road movement like movement by rail, where the route

and timings are fixed and fixed places are earmarked for embussing and debussing and for halts. Smooth working of M.T. moves requires close co-operation between the "Q" staff, G.T. companies and the unit which is loading. In operational moves, the time factor being important, it is essential to prepare and practise troops in embussing, debussing and marshalling transport.

The "Q" staff has to organize the moves by M.T. either for operations as laid down by the "G" staff or for stocking as planned by "Q."

17. Operational Moves.—"Q" and services should be taken into confidence compatible with security as soon as any operational move is contemplated. The service advisers should be given the following information:

- (a) Scope of the projected move.
- (b) Stages of moves, with mileage for each move.
- (c) Details of routes and reconnaissance reports if available.
- (d) Suggested location of repair and recovery units.
- (e) No move before.
- (f) Expected vehicle casualties by percentages.
- (g) Recovery policy.

18. Administrative Moves.—As soon as the stocking policy has been decided, "Q" staff will acquaint the service advisers about:

- (a) Tonnage to be lifted.
- (b) Period of lift and priorities.
- (c) Dumping policy and labour available for handling stores.
- (d) Recovery, repair and maintenance facilities.
- (e) Circuit of action.

19. Turn-round—Circuit of Action.—For purposes of administration, G.T. companies are generally located at the Replenishment Area in the rear. Vehicles are detailed from there, load and deliver their cargo at the required place and come back for rest. The time so taken is known as the turn-round, and the distance covered is known as the circuit of action.

For administrative reasons, it is necessary to have short turn-rounds, and the ideal is for vehicles to return to Replenishment Area during the week so that they can be properly inspected during the "day-off." The turn-round must be equal to the rate at which replenishment is required and, in order to keep to the time-table, it may be necessary either to shorten the circuit of action by interposing more G.T. companies or to improve the timings by—

- (a) Reducing the time taken to load and unload.
- (b) Increasing the speed of movement by
 - (i) improving the condition of roads,
 - (ii) maintaining high state of vehicles,
 - (iii) improving traffic control,
 - (iv) improving the condition of vehicles,
 - (v) increasing the density of traffic, and
 - (vi) reducing the halts and introducing forced marches by relief drivers.
- (c) Keeping good road clearance and discipline.

20. Before the commencement of large-scale moves "Q" staff of the formation concerned must co-ordinate the efforts of G.T. companies and repair facilities. Depending on workshop facilities available, "Q," in consultation with E.M.E., should work out a detailed programme of inspection, refitting and overhaul of engines.

Provision of Major Unit Assemblies (M.U.A.) should be planned well in advance and in accordance with the anticipated wastages. Similarly, spare parts must also be made available.

The normal life of a vehicle is 35,000 miles, after which it requires a complete overhaul. Units maintain the life-history chart of each vehicle, and the "Q" staff works out the replacement programme according to anticipated wastages.

By a concerted effort, it is possible to keep the maximum number of vehicles on the road. In Indian conditions, the units can maintain 80 per cent. serviceable vehicles if replacements are provided expeditiously.

21. **Sequence of Action for M.T. Move.**—The organization of a move of marching personnel by M.T. can be phased as follows:

(a) **Phase I—Warning Orders and Preparation.**

- (i) "G" branch of the formation concerned gives the expected date and time of move. The destination, where compatible with security, is also given out, but, if not possible, the radius of action is intimated. "Q" branch of the formation in consultation with "S.T." details the transport unit which is to carry out the moves. In case of moves where more than one unit is being lifted, a column commander is detailed by the formation, otherwise by the unit concerned.

- (ii) The unit(s) and M.T. company(ies) carry out necessary preparations. Column commander meets the sub-unit and M.T. company commanders to arrange all details. Column commander remains responsible for the move of the unit(s) from the beginning to the end. He makes security arrangements, details sub-unit commanders and disperses officers in the column for control and supervision of march discipline. The Transport company commander is only responsible for the transport and the drivers and is available to the convoy commander for technical advice. For smooth organization of a M.T. column, it is necessary that the column and transport company commander work hand-in-glove with each other.
- (iii) Movement orders are issued laying down the date, time and place of start, the places and durations of halts. Where complicated moves are involved, the time-tables are also attached, giving the date, time and place of destination.

(b) Phase II—Embussing.

- (i) The number of bodies that can be carried in a lorry is limited. The unit is subdivided into lorry loads, each load being under the command of a N.C.O. The lorry loads in the column are consecutively numbered, and in case of long columns the sub-unit vehicles carry distinguishing flags. The lorries allotted to the unit are numbered in chalk corresponding to the lorry loads. The unit representative and guides from the embussing unit report to the transport company to take the vehicles to the embussing area.
- (ii) **Embussing Area.**—Vehicles occupy much space and in case of congestion become easy targets for air attack. The embussing area must be selected with a view to cover from the air and ground. Embussing can be done by two methods—harbour or platform method.

Harbour Method.—The vehicles harbour at the place of troop concentration, the men embuss and the vehicles move out to cross the starting point at

the specified time. Depending upon the availability of cover and the fact that roads must be available for turn-round and getting out of the harbour, this is the more convenient method. The troops can embuss in peace without the risk of anything going wrong. The guides must work out the time necessary to cross starting point (S.P.) from the harbour and guide the head of the column according to timetable.

Platform Method.—Where the vehicles cannot get off the road, or cover is not available to marshal all the vehicles, it is necessary to embuss troops at a given point, where the vehicles come individually or in groups, troops embuss, and vehicles move off. The space of the platform must be carefully marked and the timings accurately worked out. Guides should be provided with motor-cycles to call forward transport and the embussing parties. Where long distances are involved it may be necessary to have wireless intercommunication between the embussing point, the marshalling area of the transport and the concentration area of troops. Each party to be called at the correct time. This is a very difficult operation and often goes wrong.

- (iii) **Embussing Drill.**—In both methods of embussing it is necessary to waste as little time as possible, and troops must be properly drilled so that lorry loads can embuss within thirty seconds.

Ready to Move.—Short blasts on the whistle followed after an interval by the “Mount” signal—two or three movements of the hand in the upward direction. Drivers double to the vehicles, switch on and start up engines. Two men previously detailed lower the tailboard and help others to embuss. Replace tailboard and mount.

Move.—The person in charge of convoy swings his arm to front above the shoulders. Leading vehicle moves and all others follow at intervals laid down.

(c) **Phase III—En route.**

- (i) Each group of vehicles is allotted “Block” times

during which period the head and tail of that group must pass the specified point. The guides bring the leading vehicles to the starting point (S.P.) where the traffic control post (T.C.P.) checks the vehicles and the time of departure.

- (ii) Depending on the tactical position, the advance parties are sent ahead of the main column to post guides necessary to mark the route, if not done by the higher formation, and to prepare the halt and camping areas.
- (iii) The density of vehicles on the road, known as vehicles to the mile (v.t.m.) is laid down, depending on the air threat. The greater the danger, the bigger must be the dispersion, consequently the lower will be the density. At night, when air observation is difficult, the density can be increased, depending on the prohibition against use of lights. In case of tactical moves, when secrecy is paramount, the vehicles may have to move without any lights. The average mean density in day-time is fifteen vehicles to the mile (v.t.m.), while at night it can be doubled, depending on the situation. All vehicles must carry light automatics properly mounted for action against air if it becomes necessary.
- (iv) The speed at which vehicles have to travel is laid down as miles in the hour (m.i.h.), which is converted into "cruising speed," taking into account the time taken at halts and restricted movement.
- (v) To control traffic, a traffic control organization is set up by higher formations in case of large moves, or arranged locally by the column commander. The road control organization, manned by movement control and military police, marks the route, arranges diversions, checks and reports the movements of column, and through control posts can change directions, speed and density if required by the higher formation.
- (vi) The column commander generally moves ahead to control the column and should have communication with the traffic control organization and have officers and N.C.Os. on motor-cycles patrolling up and down the column for traffic discipline.

(vii) Drivers drive their vehicles at the cruising speed and keep the distance from the vehicle in front as laid down. Each driver must have a route card showing distances of crossing places, where they have to turn, halt and terminate. They must be given orders regarding action to be taken in the event of an air attack, breakdown and darkness. The second driver or the man in the companion seat must watch the signals from the leading vehicle.

(viii) *Halts.*—In ordinary running soft vehicles have a routine halt of ten minutes at ten minutes to every even hour, while armoured vehicles halt for twenty minutes at twenty minutes to every even hour. The routine halts should be adjusted so that the convoy does not halt in a congested place. For long moves there should be a long halt of one hour for drivers to have a quick look at the engine and carry out immediate maintenance. At routine, long or enforced halts due to a road block or for tactical reasons the column will be halted as follows:

Convoy commander raises arm full extent above head.

All vehicles pull up and pull off the road and halt dispersed. Drivers do not switch off. A soldier from each vehicle dismounts and stands on the opposite side of the road to direct traffic and pass the signals to the rear. Every sub-unit commander ascertains the cause of halt, keeps the vehicles dispersed, and gives the signal for dismounting or march off as the case may be.

(d) **Phase IV—Dismounting and Debussing.**—The drill for dismounting at halts and debussing on arrival at destination is identical except that, while at the former the troops have to embuss again, in the latter vehicles on arrival at the debussing area are dismissed.

(i) *Dismounting Drill.*—Two long whistle blasts followed by two or three movements of the hand with the palm towards the ground. The signal to be repeated by all sentries. Two men jump out from each vehicle, lower tailboard and help other personnel out.

All ranks except driver dismount.

Tailboards are replaced.

All ranks double to take up all-round position.

Drivers switch off, dismount and take up position on opposite side of road to control traffic.

- (ii) *Debussing Area.*—As the troops embuss, so do they debuss from the vehicle, either stopping in harbour or on the marked part of the road.

The advanced party which precedes the column or the traffic control organization arranges a warning post about 500 yards short of the debussing point/area. In case it is dark, the N.C.O. at the warning post shouts "Ready to debuss," and all occupants get ready. On arrival at the actual debussing place, the vehicles halt, men dismount and clear the road immediately. The empty vehicles are directed by the transport company guide to the assembly area.

- (iii) Debussed troops should not march on the road and will move immediately to assembly areas. "A" Echelon transport should be directed to suitable areas previously selected.
- (iv) Empty vehicles should not block the road but will move to the assembly area and await dismissal order from the column commander.

Section 5. ROAD TRAFFIC CONTROL ORGANIZATION

22. To control traffic, particularly on a one-way road and to make the maximum use of the road space, it is necessary to have a traffic control organization permanently in case of rear L. of C. and temporarily for the particular operational move. While the L. of C. organization is generally controlled by the Administrative Area in which located, the latter is organized by the commander of the formation moving out.

For these duties every unit must have an officer and personnel equivalent to a platoon trained for traffic duties. They must be properly equipped with arm-bands, sign-posts and mounted on motor-cycles.

The route between the starting point and dispersal point is divided into sectors varying from ten to thirty miles, depending on the nature of the route and the degree of control considered

necessary. Each sector control has a small headquarters which checks progress, collects and passes information. A motor-cycle guide leads the group and informs the next sector about the number of vehicles in each group.

Sector control man the starting and dispersal points, provide traffic patrols and pointsmen at cross-roads, and keep contact with the regulating headquarters, which co-ordinates all the sectors. For quick transmission of information, T.C.Ps. should be equipped with wireless sets.

Regulating headquarters are responsible for marking the road and for sign-post for moves during the night. To assist column commanders, regulating headquarters are prominently sign-posted.

23. Administrative Arrangements.—Before the start of the move the column commander should consider the following administrative arrangements:

- (a) **Rations.**—Depending on the turn-round, rations are carried for the troops for the onward journey and for drivers for the total amount of days.

Cooking arrangements for drivers is the responsibility of the M.T. Company commander, while for the personnel being moved the convoy commander is responsible.

Water for cooking, drinking and radiators should be arranged, particularly in hot weather and where gradients are steep.

- (b) **Petrol.**—All vehicles should move out with their tanks full, which will give them a radius of action of 200 miles. For journeys beyond that petrol must either be carried in tins or tanks refilled on the way. Vehicles must always carry a reserve of four gallons. Generally a spare lorry carries reserve petrol to meet any emergency.

- (c) **Duty Slips.**—For non-operational moves, when it is necessary to account for mileage and petrol consumption, it is necessary to prepare duty slips for each task. The mileage is entered in the Unit Log Book.

- (d) **Spare Vehicles.**—With each convoy there should be sufficient spare vehicles to take over the loads of breakdowns on the way. It is necessary to ensure that these vehicles are not loaded from the very start. These vehicles are not numbered and are marked with white cross marks, or "Not to be loaded" is written on them.

- (e) **Breakdowns.**—Whenever a vehicle stops due to some defect it should be pulled off the road and left there till the whole column has passed. The driver of the breakdown or the spare man should direct the traffic. The breakdown lorry follows the rear of the column. In case of operational moves, the casualty can be evacuated forward, but in case of administrative moves it can be taken back to rear areas for repair as the case may be.
- (f) **Medical Arrangements.**—A medical detachment, generally a field ambulance, accompanies a long convoy. For long marches and intensive traffic, a medical detachment may be located near regulating and sector control headquarters, where ambulances may be stationed to evacuate casualties.

CHAPTER XXII

MOVEMENT BY RAIL

Section 1. ORGANIZATION

1. Rail Moves.—For moves of men and material by land agencies, the quickest and the most economical means of transportation is by rail. When planning rail moves, the following factors must be borne in mind:

- (a) The trains can run between two fixed points.
- (b) The railway lines, stations and bridges are vulnerable air targets.
- (c) The availability of rolling stock and the operating capacity of railways on various sections is limited.

2. Organization of Rail Moves.—To make the best use of railway facilities, it is essential that all moves are centrally controlled. The longer the distances and the larger the volume of traffic to be carried, the greater becomes the necessity to centralize rail moves.

The train services are managed by civilian agencies, but in forward areas during operations they may be taken over and run by Railway Operating Companies, under the Transportation Directorate to be established at Army Headquarters.

All train moves are planned by the Movement Directorate of Q.M.G.'s Branch. All directorates at Army Headquarters place their demands on the Movement Directorate regarding arrangements to be made for move of troops and stores, giving details of strength, tonnage, originating stations and destinations. Where possible, the target dates by which the moves have to be completed are also given.

The Movement Directorate places the demand for the necessary rolling stock on the railway concerned through "Milrail" organization.

3. The "Milrail."—The "Milrail" forms part of the Movement Directorate of the Q.M.G.'s Branch at Army Headquarters. The head of "Milrail" section is a senior railway official, appointed by the Government of India, and is vested with the authority to issue orders to the various railways to carry out military movements on their respective railways.

Generally, special "paths" are allocated for military moves, so as not to interfere with schedule running of civil trains. "Paths" are "block" timings during which periods the military moves take place. In cases of emergency, if it becomes essential to adopt "free" running of military special trains, "Milrail" is competent to accord such sanction.

Military rakes for transportation of military personnel and stores are available under the control of "Milrail." In case these rakes are not sufficient, "Milrail" places a demand on the authorities concerned for additional stock.

4. Planning for Rail Moves in War.—Considering the limitation of railways, it is essential that all moves are planned well in advance, giving the necessary priority to each move. It has been found from experience that rail moves of large formations should be arranged for a minimum of fifty miles or over, as otherwise the time and effort required to marshal stock from long distances and the time wasted in loading and unloading is neither expeditious nor economical.

Rail moves in war may be:

- (a) **Strategic.**—For concentration of men and material requiring a large number of trains.
- (b) **Tactical.**—Moves of small formations and critical stores for a particular operation.
- (c) **Administrative.**—Movement of sick, wounded, reinforcements, leave personnel and maintenance stocks in small numbers or quantities.

5. Strategic Moves.—Strategic moves of large formations over long distances can either be carried out by rail or road.

The load that a train can carry is dependent on the pulling power of the engine and the carrying capacity of the railway lines and is computed in number of axles. For stores four-wheeler wagons are generally used, while for troops six- or eight-wheeled coaches are used.

Rakes can be marshalled in two ways:

- (a) **Assorted.**—When the bogies are placed according to individual requirements of units. While allowing for greater comfort for troops, proper dispersion of officers and men and movement of units according to their tactical deployment at the other end, this system is wasteful in space and requires more staff work as different types of bogies have to be assembled from various sources. This system is employed for move of specialist units requiring particular types of rakes for their stores and equipment, like Tanks, Artillery or Plant Platoons.
- (b) **Standard.**—When the component rakes of the trains are more or less fixed, permitting the transportation of a fixed number of troops. The total requirement of moves can be easily assessed by simple multiplication, but means considerable splitting and mixing-up of units to utilize the full carrying capacity. For military moves standard "block" rakes are held at various railway centres and are quicker and more economical for moves of larger formations from the same area of origin.

6. It takes approximately three hours to place, entrain and clear a rake from one station, and similar time is required at the destination for detrainment. Thus a maximum of eight personnel trains per day (twenty-four hours) can start or finish from one point if all the trains are running in one direction or there is a double line for opposite traffic. On a single line with traffic in both directions, the capacity is much lower than half due to wastage of time in crossings and marshalling.

The move of a formation requiring twenty-four trains can be carried out in three days from one station or in one day from three different stations. If the different stations are on the same line, timing of moves must be strictly adhered to.

For control of such large moves or to make the maximum use of railway capacity and the available rolling stock, regulating stations are generally established, which can also divert traffic in cases of emergency.

For long-distance strategic moves, the administrative arrangements *en route*, like feeding, watering and sleeping, have to be made in advance. Provision of kitchen cars with personnel specials can facilitate feeding, but these coaches are very limited and, even when provided, special halts have to be arranged for distribution of food *en route*. Where kitchen cars are not provided it is essen-

tial to provide long halts of three to four hours' duration for cooking during long journeys. These halts are very wasteful. It may be expedient to establish catering detachments at important junctions to provide cooked meals.

7. Tactical Moves.—Tactical moves by trains are to meet immediate operational necessity and carried out only when influence on a particular battle is desired. Therefore, rakes have to be assorted types to carry tactical units. But when and where this type of rake is not available, improvisation has to be accepted. The administrative arrangements for tactical moves becomes more complex because units are moved haphazardly to make the best use of available space and speed.

In cases of emergency, the local commander is competent to requisition civil trains for transportation of troops and material to the theatre of operations.

8. Administrative Moves.—These are normal moves of men and material and do not present any technical difficulty, but require detailed planning and careful supervision. In war, the most common form of such moves is in respect of reinforcements, sick and wounded and leave details.

(a) **Movement of Sick and Wounded.**—The patients can be moved by ambulance trains or ward coaches attached to normal trains. The evacuation from forward areas to Casualty Clearing Station (C.C.S.) is done by field ambulances and from there to the Base hospitals by ward coaches or ambulance trains, depending on the number of patients. Ambulance trains for all purposes are hospitals on wheels. To ensure correct distribution of patients to the various hospitals and convalescent depots, the movement of ambulance trains is controlled by Army Headquarters. The evacuation of individual patients by ward coaches or converted passenger coaches is arranged by local medical authorities in consultation with the local movement control authority.

(b) **Movement of "Details."**—To make the best use of available rolling stock, it is advantageous to organize transit camps at various railheads and junctions and clear them by full train-loads. But to avoid accumulation at transit camps it may still be necessary to regulate traffic by moving "details" by ordinary train service or by building up a train-load by utilizing empty "block" rakes. The first

system encroaches upon civilian space, which is never sufficient and so is not generally desirable and, as far as possible, should be avoided, where as the second method is very tedious and requires considerable organization. The train is started from one point where sufficient load for at least eight bogies is available and it picks up more coaches *en route*. Detailed orders have to be issued to all stations concerned. Movement control staff has to maintain close liaison with the transit camps local station commanders.

The same method in reverse is employed for detraining. As the transients detrain at stations *en route*, the vacant bogies are detached to be used for later demands. The detachment of bogies may not always be possible due to operating difficulties. The bogies may have to run empty to the very end, which is very uneconomical.

Section 2. RAIL MOVE DRILL

9. Preparations before Entrainment.—As soon as the warning order for the rail move is received, the staff must liaise with the movement control representative where available, otherwise reconnoitre the station and the approaches leading to it. The time of departure should be worked backwards from the time the train is scheduled to start.

The staff must look for:

- (a) Forming-up place for troops, animals and vehicles.
- (b) Loading places for material. When possible, ramps/cranes should be provided for moving tracked vehicles/heavy equipment.
- (c) The approach to the station. If a long march is involved, the halting places.
- (d) Dispersal area near the station for men, animals and vehicles.
- (e) Loading ramps for animals and vehicles.
- (f) Administrative facilities at the entraining station in respect of water, light, latrines and feeding arrangements.

The train should be properly prepared for entrainment. The quartermaster of the unit concerned should ensure through movement control staff/stationmaster that the bogies are properly washed, cleaned and sprayed with D.D.T. He should check that water-tanks are full and that the lights are working. For protection of weapons, he should check the window shutters and catches. The

bogies in the train should be so placed that officers, junior commissioned officers and men are tactically dispersed without disturbing the administrative arrangements. The compartments should be numbered in chalk with the number of the sub-unit entraining.

The train should be marshalled on the designated platform at the right time.

10. Entrainment Drill.

- (a) The principle that the things to come out last at the destination must be loaded first should always be borne in mind.
- (b) The heavy baggage which is not to be loaded in the passenger compartments should be loaded in the luggage vans well ahead of troop entrainment. Floor space for luggage stores for each sub-unit should be allotted and sub-units should ensure that they do not exceed the maundage authorized.
- (c) Families and their accompanying baggage should either be entrained before or after the entrainment of troops. As families generally take time to settle down, they should preferably be entrained first. An officer should be detailed to supervise their entrainment.
- (d) The entrainment of troops to be carried out as a drill. As the troops after arrival on the platform have to carry out loading fatigues, they should fall-in on the platform, pile their weapons, take off equipment and, after posting sentries, load their kit in their respective compartments.
- (e) The N.C.O. of each sub-unit should supervise loading of kit and see that sitting/sleeping space is not filled up with kit.
- (f) All loading must be carried out quickly and quietly, and on completion men should fall-in with their weapons.
- (g) On a fixed signal, the personnel get ready to entrain in parties as detailed before, facing their respective compartments.
- (h) When order/signal is given to entrain, all men enter their compartments. It should not take more than fifteen minutes to board a third-class bogey.
- (i) N.C.O. in charge compartment details necessary sentries for doors and reports to the officer in charge of the train when entrainment is complete.

- (j) Depending on the situation, sentries are posted in front of each door and entrain on the fixed signal.
- (k) Officer in charge of the train tells the railway authority to start the train at the scheduled time.

11. Drill en route.

- (a) At halts, personnel will be allowed to detrain only with permission. The halts can be routine halts to allow for crossings and watering of engines, or administrative halts for meals, etc. The troops will alight only during specified halts.
- (b) When the train halts, the necessary sentries will be posted outside the doors of the compartment.
- (c) On a given signal men will detrain. On public platforms, troops must maintain proper decorum and discipline and should be properly dressed.
- (d) For meals, troops will be marched to the stalls feeding counters under their respective N.C.Os.
- (e) On prearranged signal, men will get ready to entrain and board their compartments according to drill laid down for entraining.

12. Detraining Drill.

- (a) The men must be ready, before the train halts at the station, to detrain.
- (b) On signal, men come out on the platform under their N.C.Os.
- (c) After piling arms and taking off equipment opposite their compartments, men take out personal kit and place it in the transport waiting outside or collect it at a specified place. For speedy evacuation of compartments, it is necessary that men remove the kit which is nearest to the door first and not search for their own kit. It is, therefore, necessary that kit-bags are properly marked to be easily sorted out later.
- (d) After the compartments are emptied the troops put on equipment and collect arms, ready to march.

13. Preparation for March-out.

- (a) For tactical/administrative reasons it is essential that troops/goods are cleared from the platform as early as possible. It is, therefore, necessary to select such places near the platform where troops/goods can be collected.

- (b) The advance party which generally precedes the main body selects such places where troops can collect for marching off or embussing.

14. Moves during Night.—For tactical/administrative reasons entrainments/detrainments are generally carried out at night. Where platforms are properly lighted, the drill does not present any difficulties, but where lights do not exist it is the duty of the officer in charge to ensure that torches and lamps are available to help entrainment/detrainment. Necessity to observe black-out restrictions should always be borne in mind and troops trained to entrain/detrain in darkness.

15. Movement of Animals.—Animals are generally transported in horse-boxes or animal vans. The former are provided with lashing facilities, while in the latter these have to be provided by the unit.

At least one man per wagon must be detailed for looking after the animals *en route*. Floors of wagons must invariably be covered with straw.

16. Movement of Stores.—Military stores include ordnance, engineer, medical, canteen, supplies, P.O.L., firewood and charcoal; in fact, anything required by the Defence Services.

17. Director of Movement and Quartering at Army Headquarters arranges for the following moves through "Milrail":

- (a) Vehicle and stores specials.
- (b) Immediate and operational moves.
- (c) All moves requiring special type of rolling stocks.
- (d) All moves involving more than six wagons per day from any consignor to any one consignee.

18. All demands for such moves are submitted to Directorate of Movement and Quartering through normal channels, giving details—i.e., definite dates and places where wagons are required. After proper scrutiny, these demands are passed to "Milrail" for provision of stock and movement orders issued.

19. All other movements of stores by passenger and goods trains and up to a maximum of six wagons per day are arranged locally by M.C. Group/Embarkation Headquarters in consultation with the Operating Heads of the Railways.

20. The railways give preferential treatment to classified military moves as follows:

- (a) **Operational and immediate moves** ordered by Q.M.G. get preference over all other public goods traffic.
- (b) **"Milrail"** moves get preference over other public goods traffic except coal from collieries and sponsored food-stuffs.
- (c) **Local moves** ordered by Movement Control up to a maximum of six wagons per day are given preference as in (b) above.
- (d) **Ordinary moves**—all other military traffic is moved on the "First come first served" basis. All demands for wagons are registered with local stationmasters through R.T.Os. where M.C. detachments exist, and at other stations by the consignors direct with the stationmasters concerned. R.T.Os./consignors should ensure that such demands are entered in the "Priority" Register kept by stationmasters, who will allot wagons on the "First come first served" principle and in no case out of turn.

21. Movement of Vehicles.

- (a) Depending on the size, vehicles are generally carried in vehicle vans or on open flats. The former are generally used for transporting automobiles, where they can be properly secured. On open flats, one or two vehicles can be carried and railways provide lashing materials. For loading vehicles on flats it is necessary to have ramps.
- (b) Vehicles, if they are moving with the unit, are entrained fully loaded, but, for security, it is necessary to detail two men per vehicle, one of whom must be a trained driver, to travel on the flat on which the vehicle is loaded.
- (c) Vehicles are allowed a very small quantity of petrol in the tanks. On some railway systems, tanks have to be emptied. The R.T.O. will advise on the quantity of petrol allowed and the way the vehicles have to be loaded.

22. Movement of Baggage.

- (a) The baggage is carried in covered wagons where it can be safely locked in. For loading it is essential that the articles are properly sorted out so that heavy articles are loaded first. Sufficient loading parties should be detailed under the supervision of N.C.Os. for loading baggage into vehicles.

- (b) **Ammunition and explosives** should be carried in ammunition vans/covered wagons at either end of the train, and necessary fire precautions should be taken.
- (c) For the conveyance of unaccompanied baggage/stores by goods trains, the units place demands on the movement control/railway staff for the different types of wagons required.

Section 3. MILITARY FORWARDING ORGANIZATION

23. For movement of small consignments of stores/equipment to and from operational areas, a Military Forwarding Organization (M.F.O.), a part of Movement Control, is organized at important ports/railheads/roadheads.

Normally packages dispatched through M.F.O. should not be more than 50 lb. in weight and should be of reasonable size for facility of handling by manual labour.

The packages are received by M.F.O. from consignors (outside normal Post Office limits of weight) and dispatched under supervision of M.F.O. staff, who are responsible for adequate and safe storage. The drill is:

- (a) Packages are received by M.F.O. at Base Depots, where they are stored, sorted out and forwarded to formations.
- (b) On the L. of C. the M.F.O. takes over packages and sends them to F.M.A., from where units collect them on intimation from M.F.O.
- (c) Returning packages are dispatched in the reverse order.

24. Despatch and reception of stores.

- (a) **Despatch.**—Consignors must ensure that all packages are properly packed, labelled, sealed and loaded.
- (b) **Transit.**—Railway authorities must ensure that packages are carried forward quickly and safely.
- (c) **Reception.**—Consignee must arrange reception and quick clearance.

25. As soon as the units receive intimation regarding arrival of goods at the station, they must arrange for quick clearance. For any detention beyond forty-eight hours, demurrage is charged by the railways. If the goods are carried in full wagons, the consignee, before taking delivery, must ensure that wagon seals are secure. This should be done in the presence of the railway representative. Railways are responsible to deliver wagons with their seals intact.

26. When the wagons are opened, the consignee must examine the contents and see that the same are intact and that seals and locks are not tampered with. When tampering is suspected, the contents, where possible, will be examined in the presence of the railway representative and his endorsement in writing obtained on the Consignment Voucher. Where detailed checking is not possible, due to the bulk or quantity involved, these will be examined by a board of officers, who report damage or deficiencies to the next higher authority.

27. Where losses/damages occur in transit and are attributable to negligence on the part of railway, compensation claims are preferred against the railway within the prescribed time limits. Where the losses/damages are due to other causes, the board of officers recommends how the losses are to be regularized. In case of short despatches, the report is made to consignor for verification of despatches. In case of negligence and fraud, disciplinary action is taken against the individuals held responsible and losses regularized (in accordance with the recommendations of the board of officers) by the competent financial authority.

CHAPTER XXIII

MOVEMENT BY SEA

1. Sea Moves.—Moves of men and material by sea may be carried out in troop or chartered civilian ships arranged by Naval Headquarters or requisitioned through the Commerce Ministry of the Government of India.

Large-scale sea moves will generally be carried out from any main ports in India, where embarkation staff will be responsible for embarkation arrangements.

2. Arrangements before Embarkation.

- (a) The commanding officer of the unit is responsible for ensuring that instructions regarding the drill for movement by sea are carried out by every individual.
- (b) Every individual must be medically examined and adequately protected against all diseases for which medical certificates are required by the authorities at the port of disembarkation.
- (c) Every individual must have the necessary visas/movement orders for the journey.
- (d) The requirements for sea passages for individuals, if not travelling by troopship, should be sent to the Movement Directorate three months in advance of the date on which passages are required.
- (e) The strength of parties and details of equipment should be communicated to Movements Directorate, Army Headquarters and Embarkation Headquarters concerned for the provision of necessary shipping space.
- (f) All baggage must be properly marked in conformation with security regulations.

3. The forms and returns required by regulations for moves by sea must be properly scrutinized, and the commanding officer

must ensure that the details are accurate and the information communicated to all authorities concerned well in advance.

Service personnel proceeding to ports of embarkation *en route* to destinations abroad must be in possession of the following documents:

- (a) Valid passports, with visa(s) as necessary.
- (b) Medical Certificates.
- (c) Movement Order.
- (d) "No-objection Certificates."

It is the responsibility of "Despatching Authorities" nominated by Army Headquarters in each case to issue complete the documents and ensure that personnel proceeding to ports of embarkation are in possession of correct documents.

- (a) All personnel travelling by sea ex-India must be in possession of passports with visas for respective destinations. These passports are obtained from civil passport authorities concerned. In cases where possession of "Entry Permits" is also necessary, instructions to that effect are included in despatch instructions issued by Army Headquarters.
- (b) Medical Certificates are completed on International Forms and are issued in duplicate to the individuals travelling.
- (c) All personnel proceeding to ports for embarkation are provided with Movement Orders in the form of instructions issued by Army Headquarters. The Movement Order constitutes authority for the individual to embark on a particular ship.
- (d) "No-objection Certificates" are required only for Indian nationals sailing ex-Calcutta and Madras for destinations in the Far East and for personal servants accompanying officers. These certificates can be obtained from the Protector of Emigrants stationed at the ports of embarkation at which the individuals have to embark.

4. The luggage that can be carried by individuals is limited and classified as follows:

- (a) **Cabin.**—Limited to only a few packages which can be stowed away conveniently in the cabin. The size of the package should not be more than three feet by two feet by fourteen inches. All items must be labelled with a distinctive label marked "CABIN."

(b) **Wanted on Voyage.**—In every ship there is a baggage room where extra luggage which may contain necessary change of clothing during the journey is stored and from where it may be obtained on request. The number of packages is limited and all packages must be so marked distinctly.

(c) **Heavy Baggage.**—This is the rest of baggage within the entitlement which is carried in the hold of the ship, from where the passenger cannot get it during the journey. The heavy baggage must reach the port of embarkation at least two days before the embarkation date for troops. Baggage must be properly packed, crated and labelled. The unit must detail a baggage party to ensure the security, embarkation and disembarkation of unit baggage.

5. All baggage over and above the entitlement is sent through Military Forwarding Officer (M.F.O.). All unaccompanied packages must be securely packed, crated and properly labelled. It is always advisable to insure personal luggage.

6. For large troop-movements, Army Headquarters will detail the necessary staff, including the officer commanding troops, with each ship. The embarking unit should send an advance party to the port of embarkation to make the necessary arrangements. This party comes under the command of the officer commanding troops.

7. **Embarkation.**—For embarkation, the troops and stores have first to be moved to port from inland and, due to limited facilities available at the port, the various moves have to be properly linked up by the Movements Directorate. As it is not always possible to embark direct from trains or vehicles, a concentration area close to the port of embarkation should be selected where troops and stores can be placed in advance of the arrival of the ship. The sequences of action for a sea move are:

(a) "G" branch, Army Headquarters, issues warning and move orders to the unit concerned, giving the probable date of departure.

(b) "Q" branch arranges rail and shipping moves.

(c) Movement Directorate allots the ship and issues movement orders to units.

(d) Units dispatch advance parties to port of embarkation on receipt of intimation of expected time of arrival (E.T.A.) of ship.

- (e) Ship arrives in port and is prepared for embarkation by embarkation staff in consultation with the shipping authorities.
- (f) Unit arrives at port.
- (g) Embarkation carried out under supervision of embarkation staff.

8. Embarkation Drill.

- (a) As the unit/party arrives at the wharf, it is met by a guide detailed by the embarkation staff.
- (b) The embarking party collects its kit and is detailed off according to their allotted space on the ship.
- (c) All weapons are collected and placed in the armoury on the ship (rifles with fixed bayonets with scabbards on).
- (d) Men on being warned to embark collect their kit and stand by to embark.
- (e) The guide leads the party up the gangway in single file.
- (f) The deck N.C.O. checks each individual at the head of the gangway with the nominal roll.
- (g) The party is led to the allotted space.
- (h) Men store their kit and equipment and collect near the appointed place, where N.C.O. i/c deck reads the fire instructions. No smoking is allowed on troop decks.
- (i) Men remain seated at their mess tables till the final inspection before sailing.

9. **Voyage.**—During the voyage, officers and men are detailed for various duties. Troops generally are very congested and normally feel very uncomfortable during the long sea voyage. This can be aggravated by sea-sickness, more so during rough weather. It is, therefore, necessary to keep them occupied. Welfare and entertainment activities for the voyage must be planned before embarkation.

All troops must do boat drill daily under the orders of the Naval Deck Officer. Alarm positions and Anti-Aircraft (A./A.) drill must be carried out both by day and night.

As many men get sick during a sea voyage, it is necessary to have cleaning parties. The medical officers in charge of the ship must carefully supervise the sanitary arrangements.

Men are allowed to come up to open decks at specified times.

All the stores and equipment supplied for the voyage by ship stewards must be inspected and carefully checked before disembarkation.

10. Disembarkation.

- (a)** Men disembark from the ship either at a port of call or on arrival at destination. At the port of call men may be allowed on shore for a few hours in organized parties. Men will disembark properly dressed and will be detailed in parties under an N.C.O. They must come back to ship well in time.
- (b)** At destination, officer commanding ship, in consultation with the embarkation representative, prepares a disembarkation plan and issues necessary instructions.
- (c)** Men are warned to get ready for disembarkation.
- (d)** Individuals collect their personal kit, including weapons from the armoury.
- (e)** The voyage kit is handed back to the quartermaster/steward of the ship.
- (f)** Light baggage, if weather is clear, is stacked on deck before the ship is berthed.
- (g)** Men disembark carrying their kit and move to the train or concentration area under instructions of the guides detailed by the embarkation authorities.
- (h)** After the troops have disembarked, all ship stores are checked again.
- (i)** Baggage parties are detailed to collect baggage from the hold and to load it on the train.
- (j)** The embarkation officer issues the necessary railway vouchers for the inland move to individuals and parties concerned.
- (k)** The unit leaves the jetty for its final destination.

CHAPTER XXIV

MOVEMENT BY AIR

1. **General.**—With the vast development in aeroplane designs and increase in their carrying capacity, transportation by air is gradually becoming one of the normal methods of moving troops and stores. The move by air requires similar organization as for moves by land and sea. Troops can either be moved by military transport squadrons or by civil aircraft, which can be chartered for specific purposes. For air moves in operational conditions, the following factors have to be borne in mind:

- (a) Local air superiority over take-off and landing airfields must be obtained.
- (b) Air supremacy during the move should be secured or adequate fighter protection must be provided.
- (c) Planning must be detailed to utilize the full capacity of aircraft space and operational capacity of the airfields.
- (d) Planning must be flexible because air moves are dependent on weather conditions.

2. For the efficient transportation of forces by air, it is essential to train key personnel for both emplaning units and operational staff of ground and air forces in the technique of air transportation. Closest co-operation between the ground and air forces must be maintained at all levels during large-scale movements by air.

3. **Planning of Air Moves.**—Air movements are analogous to sea-borne moves as they involve:

- (a) Transport of troops from land to air and back to land.
- (b) Organization and operation of an air port.
- (c) Command of the air.
- (d) Dependence on weather conditions.

4. By taking all the above factors into consideration, the air moves may be slow in conception, but have to be quick in execution. By proper organization, ten to fifteen transport aircraft can be landed per hour by day and about half that number by night at one air strip of average size.

5. For large-scale moves it is necessary to have:

- (a) One or several rear airfields with proper organization.
- (b) Necessary number of aircraft (the turn-round depends on the type and speed of the aircraft and the distances involved).
- (c) One or two forward airfields with the necessary ground organization.
- (d) Good communications between the operational headquarters and rear and forward airfields.

6. From the turn-round time, the rate of fly-in and the rate of build-up of the forces can be worked out, depending upon the number of aircraft, airfields and sorties that can be carried out.

7. Preparations for an Air Move.

- (a) Army Headquarters in consultation with Air Headquarters decide the scope of operations and lay down the priority of movement.
- (b) The formation headquarters being moved prepares and issues detailed Movement Priority Tables according to the priority laid down.
- (c) Units to be moved prepare Unit Emplaning Tables and Emplaning Manifests.
- (d) Individual Unit Emplaning Tables are consolidated at formation headquarters to ensure that the move is properly co-ordinated and for control during the actual move.
- (e) All units prepare men and stores according to the manifests, giving detailed weight of personnel, stores and equipment to be carried in each sortie.
- (f) Operation orders for the move are issued.
- (g) Unit details Emplaning Officer, who reconnoitres the concentration/marshalling area and the route from there to the various points on the airfield in liaison with the airfield staff.

8. Procedure for the Move.

- (a) Movement Priority Tables issued by Army Headquarters constitute the warning order for the unit.
- (b) Serials arrive in the Marshalling Area at specified time—approximately two hours prior to emplaning.
- (c) Unit Emplaning Officer reports to officer in charge of ground control on rear airfield.
- (d) Officer in charge of ground control calls forward sortie serials from the Marshalling Area according to loading time-table.
- (e) Sortie serials arrive in order of despatch and emplane.

9. Marshalling Area.

- (a) Before emplaning, the troops are concentrated in a Marshalling Area, which may be the same as the Concentration Area. It should be in close proximity to the airfield and provide enough space and cover for troops and stores waiting to emplane.
- (b) Units assemble in the Concentration Area prior to move and are placed according to the Emplaning Tables.
- (c) Loads are checked with Emplaning Manifests.
- (d) Administration of the Marshalling Area is the responsibility of the ground formation.

10. Emplaning Drill.

- (a) The stores, equipment and vehicles accompanying a sortie are pre-loaded according to the time-table given by the officer in charge of ground control.
- (b) Each sortie serial preferably carried in a three-tonner arrives at the loading apron.
- (c) Sortie serials report to check point at the loading apron.
- (d) Unit Emplaning Officer checks the loads against the loading manifest and supervises emplaning.
- (e) Men emplane in single file, leading man going to the furthest end of the plane.
- (f) When serial is loaded, the unit Emplaning Officer informs the Ground Control Officer.
- (g) Ground Control Officer clears the aeroplane for take-off.

11. Procedure on Flight.—During the flight, all ranks must obey the instructions of the captain of the aircraft. NO smoking is permitted inside the aircraft. For high altitude flying, if the aeroplane is not heated, necessary blankets are issued.

12. Arrival at Destination.—The procedure on arrival at the forward airfield is precisely the same as for the rear airfield, except that it is executed in the reverse order.

- (a) The captain of the ship issues the necessary warning regarding landing. All ranks get ready to deplane.
- (b) The men deplane in single file, the rear man getting out first.
- (c) Unit deplaning officer travels in the first serial and supervises deplaning and unloading of aircraft.
- (d) Sortie clears the airfield, is checked against the manifest and loading tables.
- (e) Sorties are carried to transit areas for further disposal.
- (f) Detailed information of sorties is passed to rear airfield and Operating Headquarters, who consolidate all information and issue a daily Air Move Table for air movement to take place the following day.

PART VII

PROCEDURE

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CHAPTER XXV

MOBILIZATION

1. **Definition.**—Mobilization is the process by which a unit converts itself from peace to war footing. Though it is the function of all units to be always prepared for war, yet it is not necessary for them to be equipped and kept ready like a spring to recoil immediately. The winding of the spring for war is the process of mobilization. As soon as the danger of war becomes imminent, units are put on to a war footing. Speed being one of the vital factors in war, it is essential that this conversion should be smooth and speedy. All details should be thought out in the minutest detail and practised, if necessary, in peace time.

2. Preparations in Peace.

- (a) Every unit in peace has an authorized establishment of officers, men and equipment, which is known as the Peace Establishment (P.E.). The unit commander must ensure that unit P.Es. are maintained up to scale. As P.Es. are always on a lower scale, any deficiency will adversely affect mobilization.
- (b) Every unit must prepare a mobilization scheme and keep it up to date.
- (c) The authorized mobilization stores should be constantly checked and kept ready for issue.
- (d) All requirements for changing to War Establishment (W.E.) must be thought out in advance and embodied in a mobilization scheme.

3. Peace Establishment (P.E.).

The P.Es. of units are laid down from time to time by Army Headquarters and compiled in volumes. They are revised by Army Standing Establishment Committee (A.S.E.C.).

4. Mobilization Scheme.

- (a) The unit Mobilization Scheme is prepared by the commanding officer. In higher formations, a mobilization committee is constituted for this purpose and prepares the details and ensures that all arrangements are properly co-ordinated and work smoothly according to plan. Mobilization schemes for all stations/depots are prepared by local committees, constituted by superior authority.
- (b) The Mobilization Scheme consists of:
- (i) *A Summary*.—Gives the brief outline of all the main functions to be performed on mobilization under separate headings for officers, junior commissioned officers, other ranks, arms, stores and equipment, buildings, receipt and disposal of property, documents, etc.
 - (ii) *A Time-Table*.—Gives in detail the date and time when various functions are to be performed and the persons responsible to carry them out. The time-table is worked forward from D Day, which is the first day of mobilization, being the day following that on which the order to mobilize is given by Army Headquarters. The time-table should be in the chronological order in which events are anticipated to take place, but there must be some flexibility in case a shorter period for mobilization is given and events do not occur as anticipated.
 - (iii) *The Appendices*.—Contain detailed orders/Instructions/time-tables for all the items mentioned in the summary. The appendices must be comprehensive and give detailed analysis as far as it can be anticipated. The orders/instructions/time-tables should be ready for signature and issue after the date, time and place names are filled in the blank spaces.
 - (iv) *The Annexures*.—Contain copies of time-tables/orders/instructions for each individual who is assigned a function in the time-table so that he can correctly perform his duties as detailed.
- (c) Mobilization regulations, mobilization schemes, reference books/authorities and other documents containing in-

formation relevant to mobilization are kept in a sealed **Mobilization Box**, the key of which is kept by the adjutant of the unit.

- (d) Every six months the unit mobilization scheme is checked and a return rendered to Army Headquarters showing the position regarding:
 - (i) State of readiness.
 - (ii) Position of personnel on the date of compilation, giving the men not available for mobilization due to medical or other reasons.

The Mobilization Return is prepared by the Commanding Officer and sent in triplicate to Army Headquarters for completion, who retain one copy and send one to the Record Centre of the unit, and the third is returned to the unit.

The unit copy is kept in the Mobilization Box.

5. War Establishment (W.E.).—The number of officers, personnel, arms, equipment and vehicles which a unit takes on service are authorized in the War Establishment (W.E.), which consists mainly of:

- (a) **Establishment of Personnel.**—The number of officers by ranks, junior commissioned officers, sepoy and non-combatants enrolled (N.Cs.E.).
- (b) **War Outfit.**—War material, equipment, clothing and other necessary materials authorized for the unit.
- (c) **War Equipment.**—Consists of that portion of the unit peace establishment which a unit retains on mobilization, and the extra equipment and vehicles authorized on mobilization consist of:
 - (i) *Personal Equipment.*—That part of service equipment, e.g., arms and uniform, which an individual carries personally for use in war.
 - (ii) *Unit Equipment.*—Such service articles like guns and vehicles which are taken by the unit when it goes to war. This equipment is generally in excess of that authorized for peace.
- (d) **Clothing and Personal Articles.**—Personal kit of the individuals, not including service kit, like blankets, haversack and mess-tin, etc. The scales on which units have to mobilize are given in mobilization orders.

6. Mobilization Orders.

- (a) Depending on the circumstances leading to war, the President will sign a Proclamation ordering mobilization, which may be of any of the following categories:
 - (i) *Total*—when all Regulars are retained with the Colours, Territorials are embodied, and the Reservists are called up.
 - (ii) *Partial*—which may mean mobilization of a part of the Regular Army, calling up of certain classes of Reserves and embodiment of certain units of the Territorials.
 - (iii) *Emergency*—which in fact is not mobilization, but only a precautionary measure when Regular reservists are called to Colours.
- (b) A special session of Parliament will be assembled, if not already in session, and informed of the Proclamation within ten days.
- (c) The Defence Minister will direct the degree of mobilization to be carried out and the target dates for calling up each class of reservists and embodiment of Territorial units.
- (d) Army Headquarters will send telegraphic orders to Commands and other persons directly responsible for mobilization under Army Headquarters to mobilize.
- (e) The notices for recall of reservists will be displayed at all public places. On seeing this notice, the reservist must rejoin his unit immediately at the place of joining shown on his Reservist Certificate.
- (f) Regimental/Record and other Holding Offices will dispatch a Notice of Recall (A.F. D463), giving the place of joining, and enclose within the envelope (A.F. D419) a travelling warrant and a cash order. (These forms are kept ready in peace in the Mobilization Box.)
- (g) The reservists arrive at the place of mobilization, the Territorials are embodied, and the Regular units change over to a war establishment.

7. Mobilization Activities in a Unit.—The commanding officer of the unit is solely responsible for mobilization and that it progresses according to schedule. On receiving orders to mobilize, action is taken as follows:

(a) Documents.

- (i) Mobilization Box is opened *immediately* and all procedures as laid down in time-table commence from the *first day* of mobilization.
- (ii) Notices to join, giving the *place of mobilization*, are issued to all concerned.
- (iii) The following documents are completed:
 - The Officers Records of Service (I.A.F. Z2041).
 - The Soldier's Personal Service Book (I.A.B. 64M).
 - The Active Service Casualty Form (I.A.F. F956).
 - The Field Conduct Sheet (I.A.F. B122M).
 - The Medical History Sheet (M.1242).

(b) Personal.

- (i) All ranks on leave or temporary duty are recalled.
- (ii) All ranks are medically examined, vaccinated and inoculated when necessary. Those found medically unfit for service are kept for dispatch to Regimental Centres with the Rear Details.
- (iii) Nominal Roll of Officers are sent to the Military Secretary Branch, Army Headquarters/Directorate concerned.
- (iv) Deficiency reports of personnel are sent as follows:
 - Officers*—to Army Headquarters, with copies to Command. The deficiencies are made good by Army Headquarters through Commands.
 - Other Ranks*—to the Record/Regimental Centre, giving numbers required by categories and classes. Surpluses are also shown for disposal orders. The deficiencies are made up by inter-unit transfers, recall of personnel from extra regimental employ (E.R.E.), reservists, and by postings from other sources by Regimental/Record Centres.
- (v) Documentation of all officers and men and all documents which a soldier takes on service are completed and checked.
- (vi) Identity Cards and Identity Discs for officers and men respectively are issued and checked.
- (vii) Temporary promotions are made to fill up all war vacancies.

- (viii) Surplus and medically unfit men are dispatched to their new units/depots.
- (ix) Nominal Rolls of all officers, junior commissioned officers and other ranks proceeding to war are submitted to the officer in charge of records.

(c) Reservists.

- (i) Send Recall Notices.
- (ii) Send conducting parties to depots for bringing reservists.
- (iii) Arrange reception, accommodation, medical examination and posting.
- (iv) Submit to Regimental/Record Centres the nominal rolls of all reservists joining the unit.

(d) Families.—When the unit proceeds on active service, the families either remain at the place of mobilization or are dispatched to their selected places of residence. The officer commanding takes action as follows:

- (i) Notifies the Field Controller of Military Accounts (F.C.M.A.) about the departure of the head of the family.
- (ii) Family allotment forms are completed.
- (iii) Railway warrants issued to families to their homes.
- (iv) List of families remaining in the lines given to the local authorities.

(e) Vehicles.

- (i) Inspection of all vehicles on charge and their classification.
- (ii) Collection of extra vehicles authorized on war establishment.
- (iii) Painting of vehicles with serial numbers allotted.
- (iv) Close all P.O.L. and running accounts and hand them over to Officer Commanding Rear Details.
- (v) Leave all stores and low classification vehicles with Rear Details.

(f) Service Equipment.

- (i) Equipment on charge which a unit takes on service is properly marked and checked.
- (ii) All deficiencies are made up and extra equipment taken over. Surplus equipment is handed back to depots or left with Rear Details.

- (iii) Issue and fitting of mobilization equipment like respirators, etc., and inspection to ensure that all individuals are properly equipped.

(g) Regimental Property.

- (i) Regimental property is properly packed and marked. Lists giving details of contents are prepared, one copy kept in the box, others handed over to Officer Commanding Rear Details.
- (ii) Silver and expensive items are stored with banks or left in safe custody with the Regimental Record Centre.
- (iii) Regimental funds are closed and all account books and ledgers are handed over to Officer Commanding Rear Details.

(h) Personal Baggage.

- (i) All unwanted baggage is packed and properly marked.
- (ii) All packages handed over to Officer Commanding Rear Details and receipts obtained.
- (iii) Officer Commanding Rear Details takes the baggage to the Regimental/Record Centre and deposits it, or, if desired, sends it to the personal address of the person concerned.

(i) Pay and Allowances.

- (i) Peace system of accounting is closed on the day of mobilization and war system of accounting started.
- (ii) All financial documents are completed, checked/audited and deposited either with the bank for safe custody or with the Officer Commanding Rear Details for taking to the Regimental/Record Centre.
- (iii) Reservists are taken on strength and are paid as other soldiers of equal rank.
- (iv) Officers make their wills and deposit them with the bank for safe custody.
- (v) All ranks ensure that their family allotments and other financial arrangements are completed before departure on active service.

8. Rear Details.—Certain personnel serving with the unit in peace becomes surplus to requirements on mobilization. They are placed under Officer Commanding Rear Details, who will:

- (a) Take over all stores and equipment left behind by the unit.
- (b) Take over all accounts and clear audit objections.
- (c) Take over regimental/private property.
- (d) Convey to and deposit all stores on charge with the Regimental/Record Centres and hand them over.

Detailed orders for the storage and disposal of property are contained in Mobilization Regulations.

9. Mobilized.

- (a) The commanding officer is responsible that higher authorities are duly informed about the progress of mobilization and also inform them of any undue delay.
- (b) A unit is considered to be mobilized when its personnel, vehicles and equipment have been brought on W.E., checked and completed, and the unit is ready to move out on active service without any further delay.
- (c) The completion report is telegraphically sent to higher authorities through the usual channels.
- (d) The unit goes to war.

CHAPTER XXVI

THE SUPPLY OF MANPOWER

Section 1. RECRUITMENT IN PEACE

1. **Recruitment.**—Recruitment in the Army is on voluntary basis and, except for the class composition of certain units laid down, there is no restriction against any Indian national to enlist as long as he fulfils the medical and good conduct requirements.

In addition to Indian nationals, Gurkhas from Nepal are also enlisted into the Gurkha units of the Indian Army.

Recruitment to the Territorial Army is on zonal basis.

2. Organization.

- (a) At Army Headquarters there is a special section for recruiting in the Adjutant-General's Branch. The manpower requirements in the form of yearly wastages are communicated to the Recruiting Organization by the Director of Personal Services at Army Headquarters except in the case of certain arms whose demands are placed direct by Record offices.
- (b) For purposes of recruitment, India is divided into areas, each under a Recruiting Officer (R.O.).
- (c) According to demands, each area has one or more recruiting officers who are generally serving officers/Junior Commissioned Officers from the Army. The demands for recruits are placed on them.
- (d) The recruits, who generally belong to villages, are brought to the recruiting offices by paid recruiters, who are ex-service men working under the Recruiting Officers.

3. Dispatch of Recruits.

- (a) At the recruiting office, the recruit is medically examined.
- (b) Recruit is sent to the Training Centre, generally in a party, and warrant is issued for the journey.
- (c) At the destination the recruit is received and broken in gently.
- (d) Documentation and equipping are carried out by the Training Centre.
- (e) After completion of recruit training, the recruit is sworn in and becomes an attested soldier.

4. Dispatch of Soldiers.—Units in the Indian Army are grouped into regiments for purposes of manpower supply and training. The Training Centres train men and dispatch them to affiliated units as demanded by them.

Before dispatch the soldiers are properly equipped.

5. Regimental/Corps Centres.—In the Infantry, the Regimental Centres are generally divided into administration, record and training wings, the last having as many training companies as the number of units affiliated.

Section 2. SUPPLY OF MANPOWER IN WAR

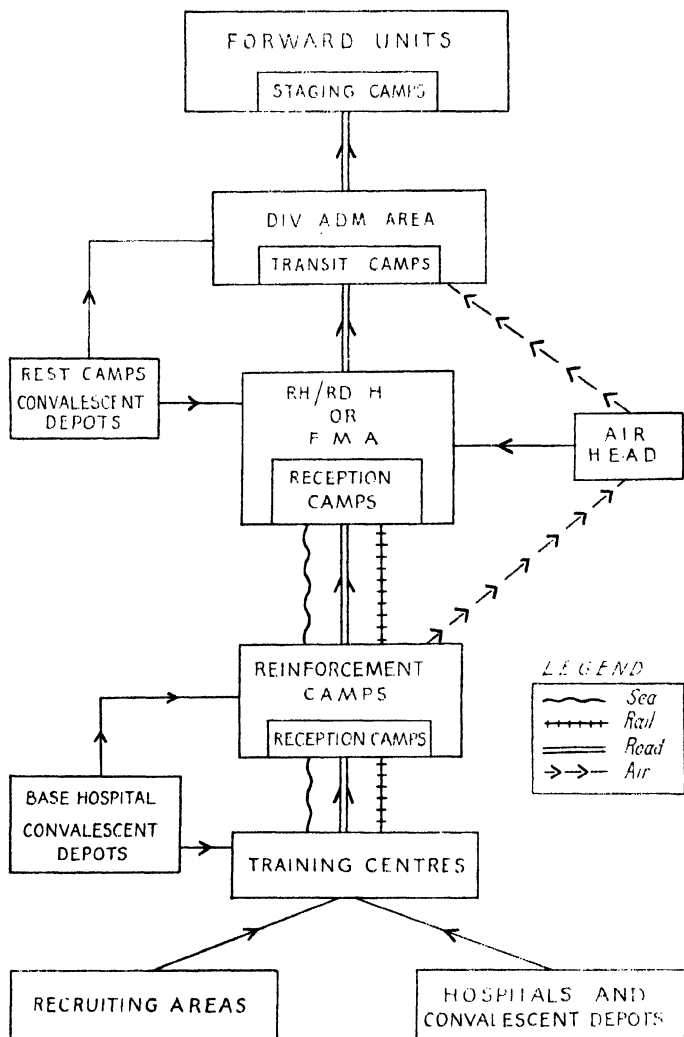
6. Reinforcements.—All personnel sent to units on field service to replace wastages are known as Reinforcements. As these personnel are likely to go into action soon after arrival in forward areas, it is necessary that they must be thoroughly trained and suitably equipped.

The quick dispatch of reinforcements is one of the axioms of war as only units which are complete in manpower can be effective in war. The units must be brought to war establishment as soon as possible.

7 First Reinforcements (1st Rfts.).—Each unit on mobilization is authorized to hold a certain percentage of manpower as First Reinforcements, which proceed with the unit to operational areas. The percentages are laid down in war establishments, and the responsibility to equip and train them rests with the commanding officer.

When the unit goes into action, the First Reinforcements are left out of battle (L.O.B.) in rear areas and are moved forward to replace casualties.

Supply of Reinforcements



8. Reinforcement Holdings.—To plan and place reinforcements so that they arrive quickly in forward units, it is necessary to work out possible requirements, which is done on the basis of monthly wastages in a particular theatre of war. The percentage for operations in Burma against the Japanese was 6 per cent. per month.

The authorized holdings of reinforcements in Reinforcement Camps are given in a multiple of months of the basic scale laid down—e.g., in the last war the holdings were for four months.

War establishment of unit	.. .. .	500 men
Reinforcements at 6 per cent.	.. .. .	30 men
Holding at the rate of four months 30×4	..	120 men

9. Reinforcement Holding Units.—In war the units are kept up to war establishments by moving forward the reinforcements from the nearest Holding Unit (H.U.), which must be replenished from the next rear Holding Unit (H.U.). The chain of supply is shown on page 253.

- (a) **Forward Reinforcement Holding Units (R.H.U.)** are organized on a Force basis, depending on the number and type of units in the Force. One forward R.H.U. can hold up to 300 reinforcements if fully organized. Generally it holds 50 per cent. of the authorized reinforcements and sends them forward on the orders of the Advanced Reinforcement Section at the Force Headquarters.
- (b) **Rear Reinforcement Holding Units (R.R.H.U.)** are organized on the same basis as the forward R.H.U. and hold the remaining 50 per cent. of the authorized scales. They are located in rear areas and their move forward again is controlled by the Advanced Reinforcements Section at the Formation Headquarters.
- (c) **Reception Camps** are established on the Lines of Communication as considered necessary, to receive, accommodate and dispatch reinforcements as ordered by 2nd Echelon at Army Headquarters. These are organized into a headquarters and multiple of sections, each section being capable to hold 250 men.
- (d) **Training Establishments.**—Recruits/reservists to act as reinforcements are trained and held normally by the Training Depots of the unit concerned. In case heavy demands are expected, special establishments like Train-

ing Divisions are set up to hold/train reinforcements. Movement forward of reinforcements is controlled by 2nd Echelon at Army Headquarters.

10. 2nd Echelon.

(a) 2nd Echelons are established by Army Headquarters to relieve units on field service of routine office work to the maximum possible extent. In brief, their duties are:

- (i) Verification and communication to the military authorities of all casualties.
- (ii) Disposal of the effects of all war casualties.
- (iii) Maintenance of statistical information for effectives/non-effectives by units/arms.
- (iv) Maintenance of records of individuals.
- (v) Supply reinforcements to units through Reception/Reinforcement Camps.
- (vi) Publish necessary Part II Orders.
- (vii) Advise Army Headquarters on all matters of manpower.
- (viii) Completion of a historical/statistical survey of the campaign.
- (ix) Disposal of all questions regarding personal services, like deaths, awards, postings.
- (x) Maintenance particulars of enemy prisoners of war and dead.
- (xi) Collection and transmission of war diaries and other legal documents.

(b) 2nd Echelon is organized in five basic sections—Records, Casualties, Effects, Reinforcements and Statistical. One clerk of the unit on mobilization goes to 2nd Echelon with the unit records and remains responsible for publication of own Part II Orders.

2nd Echelon deals direct with the officer commanding units, who must pass on all information quickly and accurately.

11. Demands for Reinforcements.

- (a) As reinforcements are sent forward to replace casualties, it is obvious that casualties must be notified quickly and accurately to all holding units and 2nd Echelon concerned.
- (b) In the field each unit has to render the following reports, which must be prepared accurately and expeditiously:

- (i) *Daily Battle Casualty Report*.—This is not a demand for reinforcements but to inform the commanders about wastages due to battle casualties and to enable 2nd Echelon to prepare statistics of casualties throughout the Force and, in the event of heavy casualties, to plan forward movement of reinforcements. Casualties are reported by signal classified as confidential in two parts, in code, as follows:

Part I. Casualties:

		<i>Code Letter</i>	
Killed	.. ..	X	(total numbers)
Wounded	.. ..	Y	" "
Missing	.. ..	Z	" "
Sick (evacuated beyond Regimental Aid Post (R.A.P.))	.. ..	S	" "

Part II. Types:

Officers and Nurses		A	(personal names and numbers of each individual)
O.Rs.	.. ..	B	(total numbers)
J.C.Os.	.. ..	C	" "
N.Cs.E.	.. ..	D	" "

The reports are consolidated by each higher formation and sent to 2nd Echelon by "A" Branch of divisional headquarters or by brigade/unit headquarters if working independently.

Nil reports are NOT sent.

- (ii) *The Daily Fighting Strength State*.—To keep the superior headquarters informed about the fighting strength of the unit, a confidential message in the following code is sent to the next higher formation, where it is consolidated and dispatched to next higher formation:

Officers	.. ..	F	(total numbers)
J.C.Os.	.. ..	G	" "
O.Rs.	.. ..	H	" "
N.Cs.E.	.. ..	K	" "

- (iii) *Weekly Field Return*.—Units are reinforced according to information supplied on the following returns:

A.F.W. 3008—for officers.

A.F.W. 3009—for J.C.Os., O.Rs. and N.Cs.E.

The returns must be absolutely accurate in detail.

- (iv) *Individual Casualty Return*.—Individual casualties occur due to transfer, promotions, appointments and losses in battle. The following three categories of return are sent by units to enable 2nd Echelon to maintain the documents and records of every individual, to publish necessary Part II Orders and to notify the next of kin of the casualty.

A.F.W. 3010—for officers.

A.F.W. 3011—for J.C.Os., O.Rs. and N.Cs.E.

A.F.W. 3012—for attached personnel.

12. Supply of Reinforcements.

- (a) The units forward the weekly Field Return and the individual Casualty Returns to the Advanced Reinforcement Section of 2nd Echelon.
- (b) Advanced Reinforcement Section checks the demands and orders the required number of reinforcements to be moved from forward reinforcement holding units.
- (c) Forward reinforcement holding units send reinforcements to Transit/Staging Camps located in F.M.As. or Formation administrative areas.
- (d) Reinforcements are sent forward to units by second-line transport.
- (e) The wastages of forward reinforcement holding units are made up by the rear reinforcement holding units.
- (f) 2nd Echelon places demand on "A" Branch, Army Headquarters, for replenishing rear reinforcement holding units.
- (g) Army Headquarters moves reinforcements from training establishments to reinforcement camps.
- (h) Training establishment demands recruits from the Directorate of Personal Services, Army Headquarters.

CHAPTER XXVII

THE EVACUATION OF CASUALTIES

1. **Evacuation in Peace.**—Every unit either has a medical officer or is attached to another unit which has a M.O. The sick are examined at the M.I. room and, if necessary, are evacuated to the nearest hospital in the unit transport or evacuated by ambulance if the hospital is at a distance.

2. **Evacuation in War.**—In war it is essential that casualties are treated quickly and evacuated to rear areas. For obtaining superiority of manpower it is essential that casualties are treated quickly and returned to units to join battle.

The chain of evacuation of casualties is shown in the diagram on page 259.

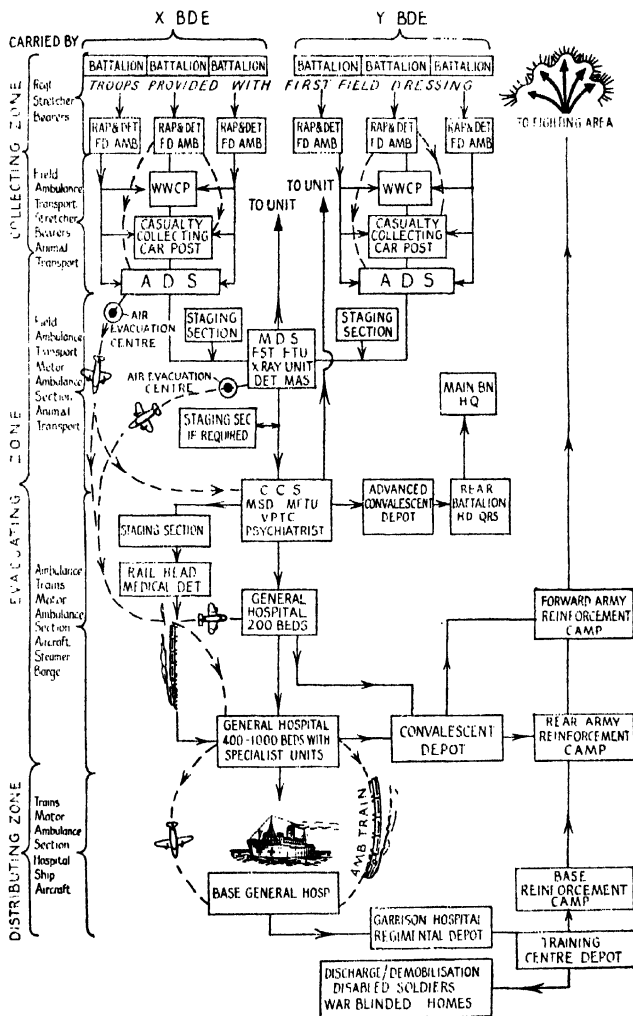
3. **Regimental Aid Post (R.A.P.).**—R.A.P. is formed by the unit medical officer and the medical platoon. Casualties from the forward units are evacuated to R.A.P. by unit stretcher-bearers. R.A.P. is sited by unit in conjunction with the R.M.O. R.A.P. should be within easy reach of forward companies consistent with safety. It should be well dug-in and given proper protection.

4. **Advance Dressing Station (A.D.S.).**—Casualties from R.A.Ps. are evacuated by the field ambulance personnel and transported to A.D.S. The closer the A.D.S. is to R.A.P., the quicker will be the evacuation of casualties, but A.D.S. should NOT be within range of small-arms fire, and should NOT be so far advanced as to become involved in minor fluctuations of the battle. A.D.S. should be sited near a road or track.

A.D.S. carry out the following functions:

- (a) Apply or adjust dressings and splints if necessary.
- (b) Resuscitate patients if necessary.
- (c) Provide medical comforts—e.g., hot sweet tea, cigarettes, etc.
- (d) Complete certain documents—e.g., Admission and Discharge (A. & D.) Book.

Collection, Evacuation and Distribution of Casualties



- (e) Hold and look after casualties until they can be evacuated to the Main Dressing Station.

The A.D.S. is formed by the Field Ambulance and evacuates casualties from R.A.Ps. by ambulance cars, jeeps or stretchers. Field ambulance stretcher-bearers may be augmented by stretcher-bearers of Bearer Company if available.

5. Car Post and Bearer Relay Posts.—Car Post is established between R.A.P. and A.D.S. as far forward as ambulance cars can go safely. If M.T. cannot be taken forward of A.D.S. and the distance between R.A.P. and A.D.S. is such that one lot of stretcher-bearers cannot cover the distance, Bearer relay posts are established at convenient places between R.A.P. and A.D.S. It may be necessary at times to establish a Car Post, or Bearer relay posts between A.D.S. and M.D.S.

6. Main Dressing Station (M.D.S.).

Casualties from A.D.S. are evacuated to M.D.S. by ambulance cars of the field ambulance or Motor Ambulance Section (M.A.S.) cars if attached or by stretcher-bearers of the Bearer Company if the terrain does not permit M.T. The M.D.S. should be sited near a road to assist speedy clearance by M.T. as evacuation beyond this point by stretcher-bearers only is very exceptional.

The M.D.S. takes the following action:

- (a) Life-saving surgery. This is normally carried out by the attached Field Surgical Team. After surgical operation cases may have to be held for a few days before they are fit for evacuation.
- (b) Continues the treatment commenced at the A.D.S./R.A.P.
- (c) Checks personal effects.
- (d) Takes away rifles and equipment for collection by Ordnance.
- (e) Holds casualties until they can be evacuated to the Casualty Clearing Station.
- (f) Informs 2nd Echelon of the names and particulars of all cases admitted.

7. Evacuation beyond M.D.S.—The responsibility of the division ends with M.D.S. Beyond the M.D.S., Corps or L. of C. Area is responsible. Casualties from M.D.S. are evacuated to the Casualty Clearing Stations (C.C.S.). Ambulance cars of M.A.S. are normally used. From the C.C.S. casualties are evacuated to General Hospital and from there to Base General Hospital by rail, road or air according to the circumstances.

CHAPTER XXVIII

THE SUPPLY OF RATIONS AND P.O.L.

Section 1. GENERAL

1. **Army Service Corps (A.S.C.).**—The most important task of the A.S.C. in the field is to

- (a) demand and obtain requirements of supplies, P.O.L., ammunition and water, and to hold reserves of the same;
- (b) carry these commodities and to deliver them to all troops as, when and where required; and
- (c) carry and deliver to all troops their normal requirements of all other commodities, like Engineer, Ordnance, anti-gas stores, mails and parcels.

2. World War II has proved that no one single system of maintenance can apply universally. Organizations vary from theatre to theatre and battle conditions cause a continual process of trial, error and improvement in order to get the best local modifications to meet situations which vary constantly.

3. A.S.C. in the field has to cope with two types of demands—viz., spasmodic and regular. The difference between the two is important, as on it depends the system of replenishment. Articles of spasmodic demand must be available whenever they are required during the day or night. They comprise petrol, ammunition, anti-gas clothing and equipment. There will be periods when continuous and wide movements are taking place and a supply of petrol must be ensured to forward troops at all times. There will be other periods when there will be very limited movement and a much simpler organization will meet the needs of forward troops. Ammunition is governed by the same considerations. The demands for ammunition and petrol should be immediately supplied. The man and animal can, if

necessary, be put on half rations and still continue to fight, but the gun and internal combustion engine will cease to function altogether unless their requirements are met.

4. Supplies and water are a daily requirement, a full day's requirement being delivered the evening before use. A man requires his breakfast, dinner and supper whether he is fighting or not. The demands, being regular, can easily be foreseen in advance.

5. **Baggage** differs from all other commodities. If night operations are not being undertaken, a man requires his baggage in the evening and he is finished with it in the early morning. Hence it is only necessary to deliver the baggage in the evening and collect it in the early morning, and during the day keep it out of the way so as not to impede traffic. Personal baggage of men is now conveyed in unit first-line transport and only the extra issue blankets are carried in second-line vehicles.

6. **Commodity Points.**—At these points, commodities are transferred from formation second-line to unit first-line "B" Echelon transport. The location of these points is selected by the "Q" staff in consultation with the C.A.S.C. Supply and petrol points may be sited together or separately as circumstances dictate. There are usually separate ammunition points for artillery and small-arms ammunition.

7. Commodity points are organized into report centres, unit transport dispersal areas and H.Q. supply, petrol point and ammunition points. The report centres are the actual points notified by the staff as commodity points. They must be clearly defined places which can be found from the map. The officers in charge of report centres mark them with the appropriate coloured flags used in the formation for supplies, petrol and ammunition, and have guides to lead the in-coming unit transport and vehicles to dispersal areas, where vehicles remain dispersed and under cover till second-line transport is ready to issue. Officers in charge of unit transport (usually quartermasters) report at the headquarter commodity points, hand in their in-dents in case of supplies and petrol, and demands in case of ammunition, and draw their requirements.

8. The size of a supply point is in direct proportion to the number of personnel being fed from it. The size of a petrol point will depend on the likely expenditure of P.O.L. and the turn-round of second-line transport.

Section 2. SUPPLIES

9. **Rations.**—The reserves held in a theatre of war are fixed by Army Headquarters. These reserves are then allocated to different depots by the Force Headquarters. They are usually expressed in a given number of days' supplies.

Rations are issued to troops and animals on a fixed scale. Scales of issue in the field are normally higher than those in peace areas. Rations are made up of various components. For personnel these are dry rations (e.g., tea, sugar, salt); tinned articles (e.g., tinned milk, jam, cheese); perishables (e.g., fresh meat, bread, vegetables, fruit, ice); and equivalents or substitutes, which are issued when fresh articles are not available (e.g., dried or dehydrated vegetables instead of fresh vegetables, eggs or fish in lieu of fresh meat). For animals the components are grain (viz., barley and gram), fodder (e.g., bhusa and green grass or lucerne) and salt.

Dry rations, tinned articles and animal rations remain fit for consumption over a long period if they are handled carefully and stored under cover. Perishables, on the other hand, present special problems as they are vital to the health and morale of troops and yet deteriorate very quickly.

10. Supply of Perishables.

(a) **Meat.**—Fresh meat in the field can be obtained by two methods—viz., by buying livestock locally or importing from outside. The supply of fresh meat by the former method presents three main problems—viz., the supply of livestock, slaughter and delivery. In areas where livestock is plentiful, supply is easy. In areas where very small local resources exist, livestock must be imported from outside. This is a difficult business as animals do not travel well over long distances. Due to the considerations of Jhatka and Halal, most units prefer their meat delivered on hoof, animals being slaughtered under unit arrangements. On occasions field butcheries may be established in rear of forward troops, where slaughter and dressing of carcasses is done. Such butcheries may be contractor run or operated by butchery sections, which are A.S.C. units.

(b) **Bread.**—For base and L. of C. troops, the field bakeries are normally located alongside the Base Supply Depot or Field Supply Depot concerned. For forward forma-

tions they are as far forward as possible, preferably next to the Field Supply Depot at the L. of C. terminal. Field bakeries can make "long keeping bread" which remains palatable longer than ordinary bread.

- (c) **Vegetables.**—Supply of fresh vegetables, fruits, potatoes and onions is arranged by making contracts or informal agreements or by direct cash purchases. Contractors deliver to the nearest Field Supply Depot/Detail Issue Depot, or A.S.C. arrange collection. If the supply is inadequate in forward areas, arrangements must be made for daily despatches by railway from collecting centres in the rear. When fresh supplies are insufficient, substitutes comprising tinned or dehydrated vegetables, dried fruits, etc., are issued.

11. **Local Resources.**—Local resources must be utilized in order to save transportation. Local resources are procured by the following methods:

- (a) **By Contract.**—This is the normal system, but not very suitable on field service except in Base Areas. Has the disadvantage that money paid does not go entirely to the producer.
- (b) **By purchase in the Open Market.**—This is the most useful and quickest method. Payments are made on delivery only and never in advance. This method should be employed carefully otherwise it forces up prices and formation of rings.
- (c) **By Requisitioning.**—This means obtaining supplies on demand and discharging by deferred payment at fixed rates. "Q" Branch at Force Headquarters should issue orders regarding requisitioning as soon after arrival in an area as possible. Requisitioning is carried out under a special ordinance and every case must be reported immediately to Force Headquarters. Supplies which are urgently required for immediate consumption may be requisitioned, if not conflicting with the Force policy, only if the owners refuse to sell at the rates laid down in any approved rate list or if sufficient currency is not available to purchase. Requisitioning, when undertaken, must be carried out vigorously and on a comprehensive scale.

- (d) **By Confiscation.**—This involves taking over the requirements of the army without payment. This is sometimes employed as a punitive measure and is normally undertaken as a tactical operation.
- (e) **By Cultivation.**—When farmers refuse to sell supplies for cash payments, they can generally be persuaded to grow crops for the army. The local purchase and civil affairs organizations may be able to assist in the development of such local resources by providing seed and machinery.

12. In a theatre of war the A.S.C. has a special organization to deal with local purchase. A Local Purchase Control Office is attached to the headquarters of a force. It works under the orders of the D.D.S. and T. Its duties are to organize and control local purchase on an area basis and to control prices. It compiles price lists for local supplies showing the highest prices which may be paid, except in cases of grave emergency when limits are non-effective. These prices are based on those normally prevailing in the area before the arrival of the force. This is done in consultation with the civil affairs service. The country or theatre of operations is divided into areas, to each of which is allotted a Local Purchase Section. The Local Purchase Officer maintains imprest accounts from which cash payments are made to the suppliers of goods and services.

13. When a division is operating in an area where fresh supplies are available locally, purchase and distribution may be undertaken by its C.A.S.C. on sanction from Corps Headquarters. In an emergency, purchases may be made by units and payments effected through their imprest accounts. But whenever this occurs, details of transactions must be sent to the local purchase officer.

Section 3. SYSTEM OF SUPPLY IN FORWARD AREAS

14. **The Principles.**—The principles governing supplies in war are that

- (a) units should always have with them, or within easy reach, two days' rations and forage and one day's emergency ration; and
- (b) stocks should be replenished daily by delivery at a point within easy reach of the troops.

15. Supply situation at 1600 hours on any day in an infantry division is as under:

- (a) On the man: Emergency ration.
- (b) In unit transport: Unconsumed portion of the current day's ration and the following day's ration recently drawn by "B" Echelon transport from the supply point or divisional administrative area.
- (c) With divisional A.S.C.: One day's ration just drawn from the F.M.A.
- (d) In F.M.A.: Two days' rations.
- (e) Reserve: Two days' reserve rations distributed between first- and second-line transport.

16. Rations are a regular daily demand and the drawing of the rations from supply refilling point (S.R.P.) and delivery of the same at supply point is carried out by a system of double echelon transport. Two exactly similar echelons operate on alternative days—viz., one delivers to troops on the first, third and fifth day and the other on the second, fourth and sixth day. The composite platoon, which is normally located in the harbour of the transport company of the formation concerned, is the unit that draws supplies, breaks bulk and issues in detail.

17. Only the minimum number of vehicles required are sent to S.R.P. to draw rations in balanced bulk. After their return it is necessary to divide rations up into the quantities required for each unit according to unit indents. This process is known as "breaking bulk," and the place where it is done is called the "bulk breaking point" (B.B.P.). The bulk is normally broken at or near the place where the headquarters of the composite platoon concerned is located or at the transport company harbour. If the situation permits, the process of breaking bulk can even be carried out at the supply point itself; this measure is economical in second-line transport.

18. **Supply Point (Sup. P.).**—The staff are responsible for fixing the locations and timings of supply points. If the tactical situation is too fluid to admit of exact location of Sup. P. being fixed sufficiently early, rendezvous (R.V.) is fixed instead, which enables the supply loaded vehicles to complete the greater part of their journey forward in good time. The staff must bear in mind the advantages of using the mobility of first-line transport by fixing the Sup. P.

some distance in rear of units (up to twenty miles). If, however, units have been actively engaged during the day, the Sup. P. should be relatively well forward.

19. There are two main types of Sup. P., one where the unit vehicles come to Sup. P. and another where the unit guides come to Sup. P. Staff orders should specify which type is to be used. In Eastern theatres it is normal for unit vehicles to come to Sup. P. Its advantages are that units are replenished in one area, thus ensuring simplicity of control, adjustments of rations are easily made, A.S.C. officers are on the spot to settle any difficulties that may arise, and there is better control of second-line vehicles because they are all under the hand of their officer commanding instead of being spread out individually up to unit areas.

20. There are occasions, however, when the unit guide system is necessary. Unit guides report at the Sup. P. and then sit with the driver of the second-line vehicle and directs him to the unit delivery point (D.P.). Apart from other disadvantages, the unit guide system may lead to difficulty, since the supplies of several small units are loaded in one vehicle.

21. Unit guides may be necessary when, in dense country, movement off the road or track is impossible. In such cases the Sup. P. cannot be laid out in the normal way, but will be dispersed on the roadside by the second-line vehicles being halted at suitable intervals. There is unlikely to be sufficient space on the roadside for unit vehicles to draw without causing congestion and dislocation of traffic arrangements. Unit guides will then lead these vehicles forward to the nearest point on the road to their units; supplies will be unloaded and conveyed to units either by animal transport or by man-handling.

22. The Sup. P. system is usually based on the Sup. P. being open for some hours—e.g., from 1800 to 2100 hours. Units are then at liberty to collect their supplies at any time convenient to them within these hours. If "B" Echelon transport of units has been brigaded, the timings can be fixed for a definite hour and the whole operation of refilling completed in half an hour or less.

23. During periods of mobile operations, the staff may order the replacement of the normal scale of rations and "perishables" by composite rations, which consist only of dry and tinned articles, and the only cooking entailed is in making tea. The number of days for which composite rations can be consumed is limited, and adequate notice must be given to the supply services to make the

change-over and obviate the loss by deterioration of articles of the normal scale.

24. In the field units indent for rations on the A.S.C. on I.A.F. F1024 in duplicate. Indents for payment issues are in triplicate. In order to relieve units to the fullest extent of detailed calculations, their indents only show the number of rations required and not the calculated amounts of each commodity. Such calculations are made in detail by the supply services and are entered on the reverse side of the unit's indents after allowing for any extra issues that have been sanctioned and deducting any excess quantities which the units have stated on their indents to be in their possession. The units indent three days in advance of consumption. The indents are taken to the Sup. P. and handed over to the O.C. Composite Platoon at the time of drawing the daily rations.

25. Mail comes up with supplies and is sorted out at the B.B.P. by personnel of the field postal unit. Individual items of Engineer and Ordnance stores, demanded by units from the base, also travel up with supplies to B.B.P., where they are sorted and collected by vehicles earmarked for such stores.

26. After issues at the Sup. P. are completed, the empty second-line vehicles load up with the packing material brought back by units. In addition there are certain backloads for which they may be utilized. These loads include the wounded and sick, prisoners of war, returning details and salvage.

27. **Water.**—The provision of water daily may become a necessity in some theatres, especially desert areas. Water provisioning is primarily an Engineer responsibility and tapping and supply of water in bulk is carried out by Engineer units. Chlorination of water is done at the water refilling point. A.S.C. have no specialized transport for the carriage of water. Water is conveyed in either four-gallon tins, painted white, or in tank lorries if available. Units indent for water in the same way as for rations and issues are made at Sup. Ps. At times separate water points may be set up. The salient facts about water, when it becomes necessary to bring it up on second-line transport, are that it is heavy (a gallon weighs 10 lb., whereas a man's daily rations on operational scales weigh $2\frac{1}{2}$ lb.) and that no effort must be spared in conserving it. The normal scale is one gallon per man per day for all purposes, but it may frequently become necessary to reduce this to even half a gallon per man. Over fifty lorries are required for an average sized infantry division at a scale of one gallon per man.

Section 4. PETROL, OIL AND LUBRICANTS

28. There are two systems of supply of P.O.L. in the field—viz., bulk supply and supply in small containers. The demand for P.O.L. by modern armies and air force is so large that supply in bulk is the only method which produces the quantity required. P.O.L. is brought by ships (tankers) to bulk installations at the base port. Pipelines run up the L. of C. as far forward as possible behind the leading troops. These pipelines are usually constructed by the Engineers and operated by the A.S.C. A.S.C. bulk petroleum storage units operate bulk installations along the pipeline; special tankage which can be quickly erected is provided for these units. Off-shoots from the main pipeline lead off to airfields, where tankage is operated by the Air Force.

29. In the absence of, or to supplement, pipelines, P.O.L. from the bulk installations at the base port is conveyed by rail tank wagons up to the railhead. The capacity of a rail tank wagon is normally 5,000 gallons. From railhead onwards the P.O.L. is conveyed by road tank wagons to storage tanks, which should be located as far forward as possible. Along the L. of C., curbside pumps are often installed above the storage tanks to make issues to vehicles in detail and thus minimize the movement of cans. All storage tanks should be buried underground as far as possible, to reduce risks from air bombing.

30. Though the P.O.L. requirements vary in different situations and different theatres of war, speaking generally figures of 10 gallons per "A" vehicle and 3 gallons per "B" vehicle (including motor-cycles) daily have proved satisfactory for provisioning purposes. For estimating P.O.L. consumption, it is only necessary to work in terms of spirit, as oils and lubricants are always fixed at 6 per cent. of petrol consumption. When calculating lubricants for aircraft, 3 per cent. of the consumption of aviation spirit is a convenient figure, but the Air Force should always be consulted.

31. The guiding principles for the supply of P.O.L. in the field are:

- (a) At the start of any movement or operation, all vehicle tanks should be full and reserve complete.
- (b) Adequate reserves should be maintained on wheels in front of roadhead within units.

- (c) All vehicles and unit reserves must be replenished immediately after any movement and all vehicle petrol tanks must be full on completion of the routine work for the day.

32. The initial allotment of second-line transport is based on a scale of fifty miles P.O.L. for every vehicle of the formation (seventy miles in the case of armoured divisions). Adjustment of scales will be necessary as losses in store, in transit, careless filling of petrol tanks by the drivers, use of petrol cookers, losses from air attack and night moves increase consumption.

33. Leakage in small containers is sometimes very heavy. It is a variable factor, depending on the roughness of the routes to be traversed and the particular conditions of the theatre of war. This must be assessed and data collected so that due allowance can be made.

34. Night moves prove wasteful in P.O.L. owing to the increased time taken on the journey, and to the fact that a large part of the move is carried out in low gear. During a night move petrol consumption is normally about double that for a similar day move.

35. Petrol refilling point (P.R.P.) may be located at the L. of C. terminal maintenance area or F.M.A. or ahead of F.M.A. Second-line transport refills from the P.R.P. as and when required. P.O.L., being a spasmodic demand, units replenish by drawing either from:

- (a) The composite platoons in their harbour in the divisional administrative area, during non-active phases of operations.
- (b) Petrol points (P.Ps.).
- (c) From dumps specially created at selected places.

36. The system of P.Ps. is very much the same as that of Sup. Ps., which has already been described in detail in Section 3 of this chapter. Units have as part of their first-line transport a small number of vehicles for the carriage and distribution of P.O.L. These vehicles go to P.P. to draw. Refilling of remaining individual vehicle tanks in the unit is done at leisure. Unit demands for P.O.L. are made on I.A.F. F1024-A. A normal requirement of issues at P.P. is the return of an equivalent number of empty containers.

37. The importance of good petrol discipline is vital in all theatres of war. Great care should be exercised in filling vehicle tanks and in handling small containers. Personnel of units are often guilty of splashing petrol when filling their vehicle tanks and not decanting containers fully. Prevention of wastage of P.O.L. must be impressed upon all ranks and it must be rigidly enforced.

38. The number of small containers required to maintain the fuel supply of a modern army is enormous. The life of a container can be considerably shortened by rough and careless handling. Unnecessary wear and tear of this sort may lead to a serious diminution in the number of containers available to maintain the supply and this may thereby seriously jeopardize operational effort. Containers must be carefully handled.

CHAPTER XXIX

THE SUPPLY OF AMMUNITION

Section 1. PRINCIPLES

1. Principles of Ammunition Supply.—No war can be fought without ammunition. In modern warfare the expenditure is tremendous. On the quick supply of ammunition depends the fate of any battle. Prior to every battle, it is therefore necessary for General Staff Branch to determine the amount of ammunition expenditure, and Quartermaster Branch to arrange for its collection. To ensure that the ammunition is stored safely and moved quickly, it is necessary to reconnoitre in detail the dumping and refilling areas and the Lines of Communication.

2. All staff officers must understand fully the following limitations of ammunition supply and, when making appreciations and plans must take cognizance of:

- (a) The transfer of ammunition takes time, depending on the distances involved. For quick replenishment it is essential that transfer points are pushed forward, with due regard for security.
- (b) The number of vehicles that can be put on the road depends on the capacity of the road. As other essential vehicles would also be using the road capacity, only a limited amount of road space will be available. In case of extreme emergency, it may become necessary to make special arrangements to get "road clear" for the ammunition convoy.
- (c) Only a certain amount of ammunition can be carried in the limited number of vehicles available. Due to different kinds of ammunition required at different delivery points, it is not possible to utilize the full capacity of vehicles.

- (d) To load and unload ammunition at various points in transit it is necessary to have labour, which in forward areas is always limited. Troop labour will have to be used in most cases.
- (e) There is always a limit to human endurance. The drivers, labourers and users have all their limits and they cannot be flogged beyond it. Even if a large quantity of ammunition may be dumped it may be idle, either due to lack of hands to carry the ammunition to the guns or the crews being unable to fire them.

3. An ammunition supply system must be sufficiently elastic to meet the varying conditions of warfare and must take into consideration the following principles:

- (a) Ammunition must be passed automatically from rear to front to replace that expended in battle.
- (b) All expenditure from ammunition echelons must be replaced immediately to obviate delay in (a) above.
- (c) In mobile operations, vehicles provided for the transport of ammunition should never be diverted from that function.

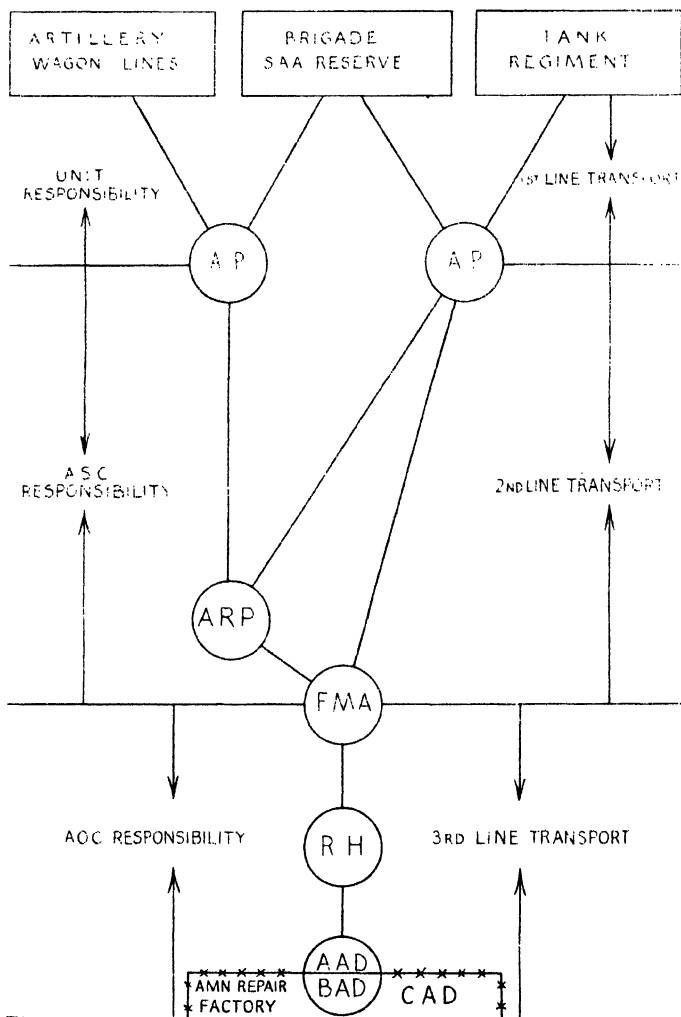
4. **Responsibility Regarding Supply of Ammunition.**—It is the responsibility of the "G" Branch to decide requirements and lay down allocations and priorities. "G" also lays down the quantities of ammunition to be held at various places as theatre reserves. It also controls the expenditure of ammunition by units.

5. "Q" Branch is responsible for all provisioning through "Q" Services—the A.O.C. and A.S.C.—and must:

- (a) ensure that units are equipped to scale and hold reserves as laid down in the W.E.;
- (b) check the quantity of ammunition held so that there are no overdrawals;
- (c) move ammunition as required;
- (d) collect ammunition returns from units; and
- (e) keep labour and transport ready to meet any sudden large demands.

6. Master-General of Ordnance Branch is responsible for maintaining stocks as required by the "G" Branch up to and including the Forward Maintenance Area (F.M.A.).

Supply of Ammunition in the Field



7. From F.M.A. the handling and carriage of ammunition becomes an A.S.C. responsibility, though inspection and repair is always carried out by A.O.C.

8. For proper co-ordination and control it is essential that all demands and issues are centrally controlled by the higher formation as long as possible so that the best use can be made of the ammunition and transport available.

9. For every unit the amount of ammunition to be carried on person or vehicle is laid down and is divided into three categories :

- (a) **First-line Scale.**—To be carried on the person or in unit first-line transport according to scale laid down in W.E.
- (b) **Second-line Scale.**—Immediate reserve of ammunition carried in second-line transport of the formation and held under the direct control of the formation commander. This lift may be carried on wheels or partly dumped in the formation administrative area at the discretion of the commander.
- (c) **F.F.C. Rates.**—Also known as “Contact Rates”; are laid down for each weapon by the Field Force Committee according to expenditure in the field. The rate, therefore, varies for different theatres and may be “intense” or “quiet” according to the battle situation. “G” is responsible for laying down the General Staff Reserve to be held in the operational area, and is known as “so many days at F.F.C. or contact rates.”

Section 2. SYSTEM OF SUPPLY

10. The system of supply is given on page 274. The ammunition is moved forward on demand from forward troops, and wastages are replenished from rear installations.

11. **Base Ammunition Depot (B.A.D.).**—Can handle 1,000 tons of ammunition per day. From B.A.D. the ammunition is sent to ammunition Rail Head (A.R.H.) according to the consolidated demand of all F.M.As. by Army Troops Maintenance Company.

12. **Advance Ammunition Depot (A.A.D.).**—A.A.D. performs the same function as the B.A.D. with the exception that it is situated in the theatre of operations and can handle 400 tons a day.

Ammunition replenishment from A.A.D. to F.M.A. is done in third-line transport of General Purpose Transport Companies.

13. Forward Maintenance Area.—Here the ammunition reserves are held as ordered by the D.D.O.S. and are sent forward in the second-line transport of the formation. Each vehicle is marked with the type of ammunition it is carrying. Henceforward the carriage and handling of ammunition is the A.S.C. responsibility. Second-line transport lifts the ammunition to either A.R.H. or A.P. as the case may be.

14. Ammunition Refilling Point (A.R.P.).—The A.R.P. is generally established behind the forward troops. A percentage of second-line lift of ammunition is generally dumped on the ground, thus creating greater reserve.

15. Ammunition Point (A.P.).—Ammunition to forward troops is delivered through the A.P. The amount held at one A.P. depends on the expected expenditure for the operation for which formed. "G" intimates the number of rounds per weapon which they desire to be placed at an A.P. "Q" notifies A.S.C. the total number of rounds of each type to be placed.

The handling, distribution and movement of ammunition at an A.P. is an A.S.C. responsibility, performed by the general duties platoon of the Composite Company.

The ammunition at A.P. is held on wheels and the vehicles are well dispersed under cover. To guide unit vehicles a Report Centre is generally established from where vehicles are guided by motor-cyclists. Where distances are short and motor-cyclists are available from the Divisional A.S.C. establishment, they are sent to the Brigade or Artillery units which are dependent on that A.P.

Section 3. REPLENISHMENT

16. Replenishment of Ammunition.—Ammunition is a Vote 9 controlled store and indents are NOT required by Ordnance and is drawn by units as expended. Accounting for ammunition and explosives and providing all replacement for wastage is the responsibility of Ordnance up to and including Forward Maintenance Area. Thereafter the A.S.C. becomes the "carrying agent."

17. As wastage occurs, the forward units replenish their first-line ammunition from the second-line lift either at Brigade Ammunition Point or from the Divisional Administrative Area, on whichever based.

18. The ammunition at Ammunition Point (A.P.) may be the whole or part of the second-line lift of the formation and can be totally or partly on wheels, the balance dumped in the Administration Area. The ammunition issued to units is promptly replaced from Ammunition Refilling Point (A.R.P.) or from a F.M.A.

19. Depending on the "G" policy, a reserve of ammunition is held in the F.M.A. It is generally two lifts at second-line scale for a division. The stocks are handled by the ammunition platoon of the Ordnance Maintenance Company. As second-line vehicles at A.R.P. get empty they go back and draw from the F.M.A. and return to their locations.

20. In case the turn-round from F.M.A. to A.R.P. is long, the Corps or higher formation can use third-line transport to lift ammunition up to A.R.P., from where it can be carried by the second-line transport of the division.

21. D.D.O.S. at the force headquarters is responsible for maintaining stocks of ammunition as laid down by Army Headquarters. He submits forecasts and makes periodical demands on the D.O.S. at Army Headquarters. It is essential that the scales laid down are always maintained and all wastage replaced expeditiously.

22. Ordnance is responsible for stocking Base Ammunition Depots and Advance Ammunition Depots on the L. of C. as considered necessary by L. of C. formation. These depots are replenished by an Arsenal in the country or received from overseas.

Section 4. DUMPING OF AMMUNITION AND SALVAGE

23. **Dumping.**—Dumping is the process by which ammunition is collected temporarily on the ground for a certain purpose. In special cases, in order to provide a greater number of rounds at the forward positions or at A.P., one or multiples of lifts are placed on the ground over and above the scale held on wheels.

Dumps are formed after consultation between the "G" and "Q" as to the amount required for a certain operation. The latter then calculate the amount of time, transport and effort required to create these dumps. "Q" is also responsible for siting, stocking, security and control of dumps.

24. Necessity of Dumps.—Dumps are created where there is extreme operational urgency and when

- (a) demands are expected to be in excess of the quantities which can be delivered in time by various echelons of transport,
- (b) regular supply is likely to be interrupted, and
- (c) local supply is necessary to provide a firm base.

25. Dangers of Dumping.—Dumping is the most uneconomical method of holding reserves and must not be resorted to except in extreme urgency. The establishment of a large number of dumps must be avoided as it is dangerous and wasteful. The main dangers of dumping are

- (a) imposition of extra strain on transport to stock dumps,
- (b) shifting of dumps to suit changing tactical situations,
- (c) loss of dumps due to enemy action or inability to shift them, and
- (d) losses due to pilferage, weather and lack of protection.

26. Salvage of Ammunition.—“Q” staff must always watch the salvage of ammunition. Empty shells, fired cartridge cases, ammunition boxes and clips must be collected by units and sent back in the empty lorries going to A.P. to collect ammunition.

CHAPTER XXX

THE SUPPLY OF ORDNANCE STORES IN WAR

1. **Replenishment System.**—Any system of replenishment in the field must take into account the following limitations of the supply of Ordnance stores:

- (a) The vast range of Ordnance stores precludes the setting up of a forward Ordnance holding unit or depot which could stock the entire range.
- (b) In the forward area mobility is essential and, as limited transport is available, only the stores which are of the greatest importance for fighting efficiency can be carried.
- (c) To keep unit equipment in action and to replace battle casualties rapidly it is essential that depots should not be far in the rear.

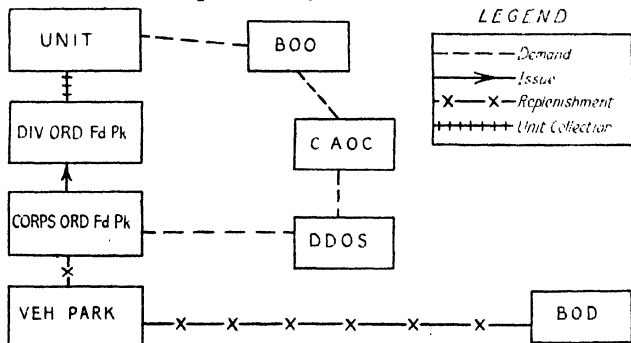
2. In view of the above limitations it is necessary to have three types of Ordnance units in a theatre of operations—

- (a) one which holds the complete range of Ordnance stores,
- (b) one which holds a limited stock of fast-moving items only, and
- (c) one which holds stocks of war-like stores and carries it on wheels.

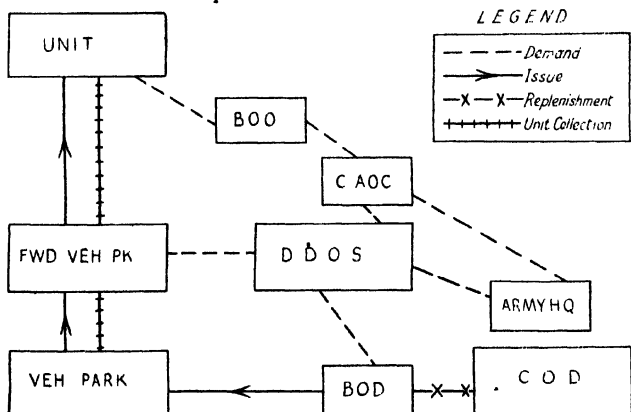
3. The complete range of stores is held by the Base Ordnance Depots, which are replenished from the Arsenal, which send the stores in bulk by rail or road to the nearest railhead or roadhead. The B.O.D. sends in bulk the requirements of the A.O.D. to its nearest railhead/roadhead, where they are handed over by the railhead/roadhead sub-sections to the General Purpose Transport Company for delivery forward or for normal replenishment of the A.O.D., who likewise sends direct up to units or the O.F.Ds. The divisional second-line transport collects the stores and takes them to the Divisional Bulk Breaking Point, where C.A.O.C. arranges

6. Motor Vehicles.—The system of delivery of mechanical transport vehicles and stores and other tracked vehicles is more complicated.

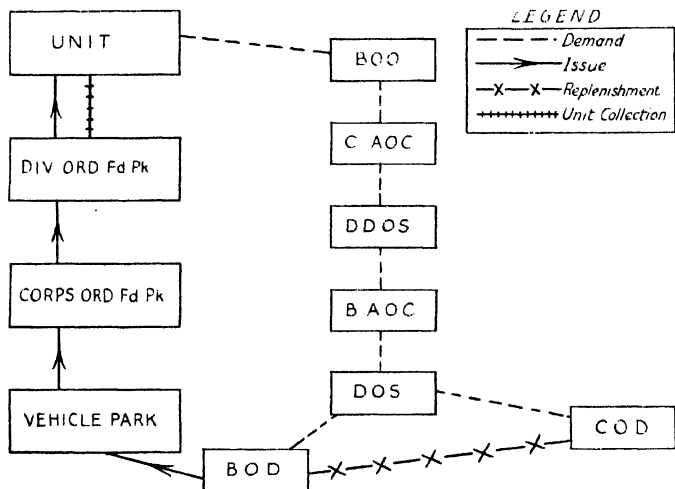
- (a) Forward units send a daily vehicle casualty return of "A" and "B" vehicles, which is collected at divisional headquarters by the C.A.O.C., who, after consulting with the C.E.M.E., demands replacements from the D.D.O.S. of the corps. Replacements are supplied to the divisional Ordnance field park by the corps Ordnance field park, which is replenished by the vehicle parks in the base.



- (b) Armoured cars for divisional reconnaissance regiments are issued direct by A.O.D./B.O.D. on the authority of the theatre headquarters.



(c) Tanks and artillery on tank chassis is issued to units on the authority of Army Headquarters through the following channels:



CHAPTER XXXI

REPAIR AND RECOVERY IN THE FIELD

1. General System.—As the object of E.M.E. is normally to return equipment in a serviceable condition to units in the shortest possible time, it follows that as much work as possible is carried out forward consistent with echelon repair schedules and tactical considerations.

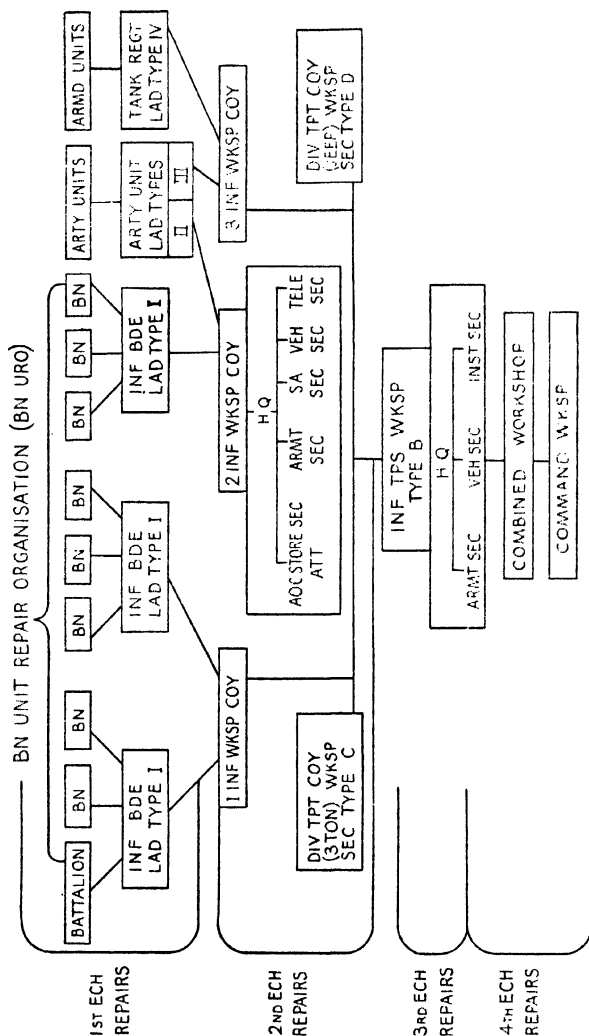
Recovery is necessary when repair is beyond the power of the user unit, or when the equipment has to be taken farther to the rear for repair.

2. Recovery.—Recovery is the repair of damaged equipment on site whenever expedient, or its removal from the place of damage to the most convenient recovery post or workshop by:

- (a) **Backloading**, which means removal from
 - (i) one workshop to another of the same or higher echelon.
 - (ii) one collecting post to another or to a higher formation, and
 - (iii) recovery post to a collecting post.
- (b) **Evacuation**, which means rearward removal of damaged equipment to the base or advanced base through road-head or railhead.

3. Responsibility of User Unit/E.M.E.—It is the responsibility of every unit to recover its own equipment whenever practicable, by employment of unit and or attached L.A.D. personnel. No vehicle which is capable of being towed should be abandoned by a unit. Normal unit recovery, such as the towing of A.F.V. casualties clear of the battle area by armoured units whenever conditions permit, is an essential feature of the general recovery organization.

System of Repairs in the Field (Infantry Division)



Recovery beyond the capacity of units, owing either to tactical considerations or insufficiency of personnel or equipment, is the responsibility of E.M.E.

4. The general principle is that the quickest means available should be used to inform the nearest unit, T.C.P. or H.Q., which in turn must pass on the information to E.M.E.

Information of location and types of recovery must be sent by the quickest means.

5. **Recovery Patrols.**—Casualty reporting and the repair of casualties with only superficial damage can be considerably expedited by the employment of recovery patrols operating along frequently used routes. A typical patrol may consist of two or three technical personnel with a light vehicle and good stock of components most frequently required for minor repairs.

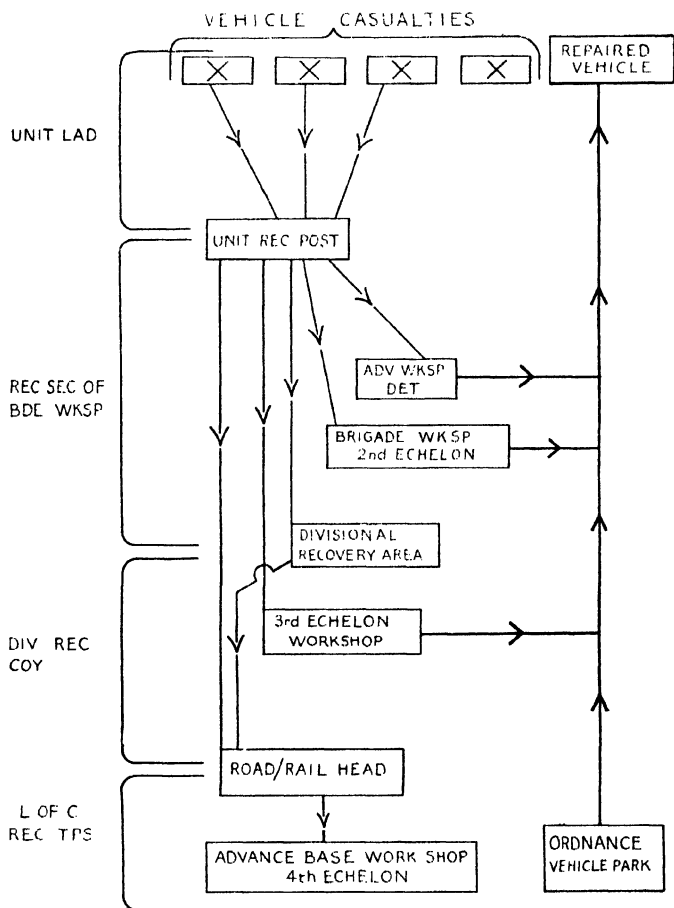
6. On the L. of C. or when the situation is static, recovery patrols work as closely as possible to a time-table notified to all units in the areas of activity. The number of patrols and their routes are decided by the staff in conjunction with E.M.E. at formation H.Q. Casualty reports of equipment damaged beyond the patrol repair-capacity are dispatched or delivered by patrols to the nearest recovery post or recovery company H.Q.

7. **Recovery Posts.**—Casualties may be recovered to locations known as recovery posts, which are allotted by formations or units in their respective areas. Recovery posts must be well sign-posted in order that they can be easily located.

8. Recovery posts may be situated in or near an E.M.E. workshop unit. Because of the severity of damage, the non-availability of spares or the tactical situation, it may be impracticable to repair all damaged equipment brought into a workshop or to a recovery post. Such casualties will be classified and placed in a collecting post either adjacent to the workshop or situated centrally relative to the workshop it serves. To effect further economy of recovery resources, collecting posts and recovery posts may be located in the same place and their roles combined.

9. The purpose of collecting posts is to avoid an accumulation in workshop units of successive echelons of casualties either temporarily or permanently beyond the repair capacity of the workshop they serve. They also provide central points from which casualties can be backloaded or evacuated as recovery resources become available. If originally well sited, under certain circum-

Recovery in the Field



stances, such as when forward troops are advancing and the L. of C. is extending, they provide convenient locations for higher echelon workshops as they move forward.

10. Casualty Classification.—Reporting of casualties is simplified by a standard method of classification applied to all damaged vehicles and equipment and comprising only four classifications:

- (a) "X" casualties can be made serviceable by the crew alone.
- (b) "Y" casualties can be made serviceable by 1st and 2nd Echelon workshop units.
- (c) "Z" casualties can be made serviceable by 3rd or 4th Echelon workshop units.
- (d) "NR" casualties (i.e., not repairable) are the remainder.

11. Important factors governing the final classification of casualties are:

- (a) Availability of stores, spares and assemblies.
- (b) Situation in respect of replacements.
- (c) Echelon time-factors for repair work.
- (d) Relative importance of casualties in the operations.

12. Assessment of casualties in a recovery area is clearly a necessary factor in the organization, since faulty classification will inevitably result in maldistribution of repair tasks. Generally "Y" casualties will require recovery and sometimes backloading. Should this involve a move to a higher workshop echelon, reclassification "Z" will be necessary. "Z" casualties will require evacuation.

13. Casualty Clearance.—Flexibility of the general repair and recovery organization is essential, and consequently a rigid demarcation of responsibility for casualty clearance cannot be given. The following is the normal method:

- (a) Units and forward formations are assisted by the L.A.Ds. and 1st Echelon workshops; such assistance being supplemented as necessary by elements of the divisional or armoured brigade recovery company (recover to recovery posts), recovery axes, 1st Echelon workshops brigade collecting posts.
- (b) Divisional recovery companies and armoured brigade recovery companies backload from L.A.Ds., 1st Echelon workshop recovery axes or brigade collecting posts to 2nd Echelon workshops or divisional collecting posts.

- (c) Corps recovery companies backload or evacuate from divisional brigade and corps 2nd Echelon workshops and divisional collecting posts to 3rd Echelon workshops or corps collecting posts. They also assist corps troops in recovery organization.
- (d) L. of C. recovery companies evacuate from 3rd Echelon workshops and corps collecting posts to 4th Echelon workshops railhead and Army collecting posts. They also recover and backload on the L. of C.

14. Casualty Reports.—The user unit must always furnish the following information when reporting a casualty:

- (a) Unit.
- (b) Date of casualty and time.
- (c) Type of vehicle—i.e., “A,” “B”—or equipment.
- (d) Condition of casualty (overturned, on side, in mud, etc.).
- (e) Map reference with co-ordinates and sheet number must be given; if this is not possible, the nearest milestone must be given along with the location.

15. Reporting casualties by telephone is permissible, but the regimental number, rank and name of the person making the call must be furnished, and written confirmation must follow in the usual manner.

CHAPTER XXXII

ACCOMMODATION IN PEACE AND WAR

Section 1. CANTONMENTS

1. **General.**—Accommodation for troops is generally provided by the following means:

- (a) Accommodation in barracks.
- (b) Billeting in civilian accommodation.
- (c) Erection of camps.

In view of the availability of large open spaces for camping and the fact that the civilian accommodation is generally neither available nor suitable, troops are generally put under canvas where barracks or standing accommodation is not available.

2. **Barrack Accommodation.**—In every important station there is a separate cantonment area where accommodation is provided in barracks. The accommodation can be:

- (a) Personal accommodation.
- (b) Living accommodation.
- (c) Unit accommodation.

3. **Personal Accommodation.**—Accommodation for officers and families is generally supplied on a "Pool" basis and allotted by the Station/Administrative commandant/S.S.O. according to the seniority of the person concerned on the accommodation roster.

The entitled accommodation by ranks is laid down in Barrack Synopsis. Where such accommodation is either not available or not provided, appropriate reductions are made in charges.

All married accommodation for officers is paid for, and the amounts are deducted either from Lodging Allowance or by cuttings from pay in respect of those officers who are on the New Pay Code. Electricity, water and conservancy charges are paid by individual occupants direct to the supplying agencies. Per-

sonal accommodation for self and family is provided free of charge to J.C.Os. and O.Rs., and a quota of such available accommodation is allotted to a unit, which sub-allots it to the personnel according to the unit roster.

It is the responsibility of the unit commander to ensure cleanliness and sanitation of the married lines allotted to the unit.

4. Living Accommodation.—Barracks for living accommodation are allotted to units by the Station staff. The C.O. of the unit generally sub-allots this accommodation to his sub-units according to administrative requirements.

Generally the Q.M. takes over the allotted accommodation from the outgoing unit and ensures that all accoutrements and stores are checked and correct and all damages properly recorded. A M.E.S. representative should be present at the change-over to assess damage, which should be paid by the outgoing unit as promptly as possible.

The unit commander is responsible for the upkeep, sanitation and cleanliness of the accommodation allotted to his unit. He must ensure that NO alterations or additions are carried out without the prior approval of the M.E.S.

5. Unit Accommodation.—The Q.M. of the unit takes over all accommodation required for unit offices, stores and equipment. No charges are levied for this accommodation. The Q.M. must take over this accommodation properly and sub-allot to his sub-units on "as required" basis.

6. Administration of Cantonments.—Peace-time cantonments are administered by a Cantonment Board, of which the local commander is the President. Other members are elected/nominated as laid down in the Cantonment Act.

7. Taking/Handing over of Accommodation.—When taking over any accommodation, a Station Board of three officers is generally held, which checks all accoutrements, etc., and submits a report to the Station commander. A garrison engineer's representative is always included in the board.

Section 2. BILLETING IN WAR

8. Civilian Accommodation.—Requisitioned/hired accommodation may be available for troops in forward areas. All requisitioning is done by the civil authorities, to whom demands are submitted by the military authorities.

It often happens in forward areas that the civil population has to vacate the accommodation which is to be occupied by troops. When the situation becomes more static these unauthorized occupations are legalized and paid for by the government. This should be avoided as far as possible, and accommodation should be hired from the owners by the occupying person or unit.

9. Occupation of civilian accommodation must be authorized by the higher formation. The available accommodation will be distributed according to requirements based on the following general considerations:

- (a) Hospitals have the first priority for location in a building. Should be away from infectious or congested areas.
- (b) Headquarter offices have the second priority for covered accommodation and should be easily accessible and have good roads and signal communications.
- (c) Units should be billeted in the order of march.
- (d) Officers should be billeted near their men.
- (e) Units with mechanical transport and other tractor vehicles should be so billeted that they are close to roads, but should not congest roads or communications.

10. **Hiring of Accommodation.**—The accommodation is hired by the garrison engineer according to requirements. The space specifications and rents to be paid are laid down. Generally a Station Board of officers is assembled to assess the rent of buildings to be taken over.

11. **Requisitioning of Accommodation.**—In case of necessity the Area/Force commander may be authorized to requisition accommodation to lodge troops. The rents are fixed by a board in consultation with the civil authorities, who are responsible for ejecting occupants from requisitioned property and handing it over to the military authorities. Requisitioning must be resorted to as a last measure as it is very repugnant to the civilian occupants, to whom as far as possible alternative accommodation must be allotted. This is the function of the Lands and Hiring Directorate.

Section 3. CAMPS

12. **General.**—For accommodation of military units in peace or war there are the following types of camps:

- (a) **Standing Camps.**—Which are available for units stationed semi-permanently. In such camps most of the ancillaries,

latrines, cookhouses, bathhouse and water are available and are on a permanent or semi-permanent basis.

In some camps, built-up hutted accommodation is also available, but normally tentage is provided.

- (b) **Staging Camps.**—Which are available for units in transit. Permanent/temporary ancillaries are available. Tentage or billeted accommodation is available for transients.
- (c) **Temporary Camps.**—Are erected by units under their own arrangements. All such camps are tactical and all ancillaries/facilities are arranged by units on a temporary basis.

13. Tentage for Camps.—All units have a scale of tentage authorized in their Equipment Tables, which they carry on manœuvres and operations, and are of the following types:

- (a) Store tents—for store-holding units only.
- (b) E.P./I.P. tents: Allotted for offices, messes, stores and for eighteen men.
- (c) 180-pounder tents: Can accommodate twelve men. Is the common form of tentage, and all men must be trained to erect such tents quickly.
- (d) 80/40 pounder tents: To provide accommodation for officers, J.C.Os. and non-combatants enrolled.
- (e) Bivouacs: Can hold two persons and are used only on operations.

14. Great care should be taken when pitching tents. In peace time they should be properly arranged so that they form a regular pattern, with proper gaps between various rows of tents. There should be four pathways, and the doors should open towards the roads/paths and away from the wind.

The tents should never be packed wet, and each roll must contain all its poles and pegs so that each tent is complete and ready to erect.

15. Selection of Camps.—Sites for camps should be selected well in advance of the arrival of the main party. When this is NOT possible, due to tactical reasons, a drill must be worked out for the quick occupation and exploitation of the camp site.

Every advance party/advance guard generally has a camp “colour” party with representatives from each unit, up to a company or equivalent, and commanded by the quartermaster of the unit or D.A.A. & Q.M.G. of the brigade.

The officer in charge of the "colour" party should be provided with detailed information on the following points:

- (a) Strength of officers.
- (b) Strength of other ranks.
- (c) Strength of animals/mechanical transport.
- (d) Total space requirements.

16. When selecting a camp site, the officer commanding the "colour" party should bear in mind the following points:

- (a) **Tactical Requirements.**—In war, tactical requirements like ground defence and cover from air is important, while in peace the comfort of troops and convenience must be the primary considerations. The following points should be borne in mind:
 - (i) *Camp Piquets.*—Tactical outposts for protection of camps are placed well in time.
 - (ii) *In-lying Piquets.*—Reserve troops ready for action should be earmarked.
 - (iii) *Perimeter Posts.*—For stopping any infiltration into the camp.
 - (iv) *Mobile Patrols.*—For contact between perimeter posts. O.Cs. of units are responsible for their own perimeter defence at all times and for making all preparations before visibility becomes bad. On arrival in camp, the advance guard takes over the immediate protection of the camp. The unit on arrival details working parties to erect tactical defences.
- (b) **Defence Arrangements.**—To co-ordinate the defence of the camp as a whole, the "G" officer—in the case of a Brigade it would be the Brigade Major—who will call unit representatives, generally seconds-in-command, of all units and supporting arms and give them the necessary orders and directions on the following points:
 - (i) *Night Firing.*—All firing at night must be controlled. Medium and light machine guns are laid on fixed lines.
 - (ii) *S.O.S. Signals.*—Call for artillery fire by units or piquets.
 - (iii) *Stand-to.*—The time for evening and morning Stand-to for camp piquets and perimeter garrison.
 - (iv) *Morning Patrols.*—To search all areas around the camp.

- (v) *Inspection.*—The commander generally inspects the units at the evening Stand-to on the first night in camp. The route is given out at the “G” conference.
- (c) **Administrative Requirements.**—The site selected must have certain administrative conveniences as enumerated below:

- (i) The site should be dry and on a gentle slope.
- (ii) Steep sides of hills, low-lying ground, river-beds and bushy areas should be avoided as they are unhygienic.
- (iii) Where possible, camps should have cover, particularly during the summer months when living in tents under the direct rays of the sun is very uncomfortable.
- (iv) During monsoons the site should be selected for drainage and hard standing for tents.
- (v) Water supply is always a major consideration and should be available near the camp. It is necessary to have good staff arrangements for the provision and protection of the water supply. In standing camps when water is supplied by pipe-lines the normal daily allowance per person is generally four gallons for all purposes. The Medical Officer ensures that water is filtered/chlorinated before supply. In camps an Engineer officer of the field company is made responsible for the selection and preparation of the drinking and animal watering points. He is responsible for organizing the water points and constructing approaches, and is assisted by the water party, which is embodied in all camp “colour” parties. It is the bounden duty of all units who arrive first to help in the preparation of the water point.

The “Q” staff arranges traffic control, protection and labour, and issues the watering programme soon after arrival in camp.

Water discipline of units must be good, and all efforts must be made to conserve water if it is procured from limited sources. Orders must be included in standing orders.

When water is obtained from running streams, the various watering places are marked and water discipline is as follows:

- (1) *Drinking Water.*—To be taken from the drinking point between two white flags during the hours when the water point is open. Water-bottles and “chaguls” are not filled direct from tanks or pumps, but from “pakhals” a distance away from the water point. The units hold water in canvas tank as a reserve.
 - (2) *Animal Watering.* — The animals are only watered at the animal watering point, marked by two blue flags. All animals are led out to water with the head collar on, and more than twenty animals must be accompanied by a N.C.O. and more than fifty by an officer.
 - (3) *Washing Places.*—All washing of persons, clothes and vehicles is done down-stream between two red flags. The vehicles are not driven into the water and are kept six feet away from the water line. Where necessary bathing tanks can be erected by using tarpaulins.
- (b) **Sanitary Arrangements.**—Units are responsible for the cleanliness of their camp areas, animal standings and the roads adjoining their areas. They are responsible for the digging or filling-in of their latrines and the removal of litter to the place of destruction. On arrival in camp, half the sanitary establishment of units and the Medical Officers report to the “Q” Branch officer for the preparation of latrines, urinals and incinerators, assisted by unit working parties.
- (i) *Latrines.*—The latrines are sited by the Senior Medical Officer. Latrines for officers and men are arranged separately on the basis of 10 per cent. for officers and 5 per cent. other rank strength of the unit. In standing camps bucket type latrines may be provided, but in temporary camps deep trench latrines are made, which must be spread with earth at least twice daily. Urine pits are also dug in latrine areas. For night use, pans are placed within the camp for latrine and urinals. Before leaving the camp all latrines and urinals will be filled in and areas marked “L.”

(ii) **Incinerators.**—"Pukka" incinerators are generally available at all standing camps, while at temporary camps they have to be erected by troops. The type depends on the material available. One or two large incinerators should be erected as advised by the Senior Medical Officer (S.M.O.). All fæces/refuse should be brought here and burnt and not thrown outside.

(c) **Malaria Fly Precautions.**—All field ambulances and unit Medical Officers should carry sufficient quantity of DDT for anti-fly and anti-mosquito spray. Necessary instructions for anti-malarial measures are published in orders.

17. Layout of Camp.—Once the site has been selected, the officer in charge of the party allots areas to units according to the following considerations:

(a) **Space Requirements.**—Units should remain in one area as far as possible. Dispersion for air protection.

(b) **Sanitary Requirements.**—Units holding animals should be located down-wind, and in defiladed areas.

(c) **Road Requirements.**—Units carrying heavy loads should be located near good roads. M.T. should be parked clear of the roads in unit areas.

(d) **Administrative Requirements.**—Water supply, latrines and cookhouses should be properly sited. Hospital tents should be properly dug in.

18. Layout.—The camp should be laid out so that there are easy access and exits for the various units. Roads should be laid for general traffic, and enough space must be provided between roads and tents to be used by troops for living and dining halls. To keep the camp orderly and clean, it is necessary to ensure that all units know the drill and adopt a universal pattern of layout.

Depots, Q.M. stores, canteen and office should be centrally located so that they are accessible to all. Vehicle parks should be provided near all offices.

The officer in charge "colour" party lays out the central institutions, while the unit "colour" parties do likewise for their respective units.

19. The water party accompanying the "colour" party exploits the selected water point with the advice of the Engineer officer. In

the case of running streams, the water points for drinking, bathing and animals should be distinctively flagged. No other place will be used for collecting drinking water.

20. Routine for the Occupation of Camp.—The officer in charge “colour” party informs the unit quartermaster when their units can enter the camp.

The units mark, make and maintain roads in their respective areas and remain responsible for keeping them clean and tidy.

In tactical camps a pathway is left immediately inside the perimeter for movement of troops.

Separate IN and OUT roads and gates are selected and controlled by military police. All entrances are guarded by units in whose areas they are located.

CHAPTER XXXIII

PAY AND ACCOUNTS

Section 1. ACCOUNTING PROCEDURE

1. Broadly speaking, there are two systems of pay accounting used in the army—Peace and War systems of accounting.

2. **Peace System.**—This system was in force before the last war. Except for headquarters and some miscellaneous formations—e.g., recruiting offices and transit camps—a member of the military accounts department designated as Unit Accountant (U.A.) was attached to each unit. He was responsible for the preparation of pay accounts on behalf of the commanding officer in accordance with the prescribed rules and submission of these accounts to the regional Controller of Military Accounts (C.M.A.). The method of disbursement was:

- (a) **For Officers.**—The unit accountant prepared the pay bills and passed them on to the commanding officer and other officers for their scrutiny and suggesting amendments, if any. Such amendments, if agreed to by the unit accountant, were immediately carried out. The paybill was then closed and submitted to the commanding officer for his signature and those of other officers (stamped where necessary at the space provided for the purpose). The bill was then returned to the unit accountant for submission to the C.M.A., duly completed in all respects and supported by relevant vouchers. The C.M.A., after necessary audit, issued cheques in favour of officers individually or their appointed bankers for credit into their personal accounts.

(b) **For Other Ranks.**—The accounts of other ranks were maintained in a monthly pay list and a Pay and Mess Book. The pay lists, separate for each company, were also compiled by the unit accountant on a nominal roll basis from the Part II Orders, and claims and other documents received by him up to the 25th of the month to which the pay lists pertained. He submitted the pay lists to the company commander and sent an express letter or telegram to the C.M.A. showing the amount due on each pay list. On receipt of this telegram, a cheque was issued by the C.M.A. in favour of the Imperial Bank for credit to the Public Fund Account of the unit. The Pay and Mess Books were compiled by each company from their respective pay lists. These documents also served as acquittance rolls. The closing debit or credit balances were carried forward from month to month. All miscellaneous credits and debits—e.g., regimental cuttings, sports and other funds—found place in the book, which was checked by the unit accountant and audited by the Local Audit Officer (L.A.O.) on his periodical visits to the unit.

3. **War System.**—The peace system was very convenient and satisfactory in so far as each officer and other rank was in a position to contact the unit accountant and rectify mistakes in their accounts, if any, by mutual consultation on the spot. During the war, however, Last Pay Certificates (L.P.C.) in respect of officers and other ranks could not keep pace with frequent and sudden moves of units, and this resulted in great inconvenience to troops for their pay and family allotments. Accordingly, an office of F.C.M.A. was formed in Poona, and Individual Running Ledger Accounts (I.R.L.As.) were maintained for each officer by the F.C.M.A.(O.A.B.) Poona, and for other ranks either by the Field Pay Officer (F.P.O.) attached to the Record Office of the Regimental Centre or F.C.M.A.(O.Rs.) in respect of those other ranks who had no record offices.

War system of accounting, though started for the individuals serving in field areas, was given universal applicability by the end of World War II. At present there is a separate F.C.M.A. for other ranks controlling the various F.P.Os. attached to Record Offices. In this system pay is not disbursed monthly as under the peace system, but credited in a running account of the individual, known as I.R.L.A. The payments are made as:

(a) For Officers.

- (i) *While serving in peace areas*, entitlements are paid to bankers by F.C.M.A.(O.A.B.) Poona. Monthly statement of accounts giving the detailed account of emoluments are forwarded to officers each month. Civilian officers submit their monthly paybills and are paid by the regional Chief Controller of Military Accounts (C.C.M.A.) as on the peace system.
 - (ii) *While serving in field areas*, officers draw advances on field cheques from the local field cashier. The accounts are cleared through Field C.M.A. and, after clearance of these advances, family allotments and balance of their entitlements, if any, are paid to their nominated bankers. The statement of accounts are forwarded to officers monthly by F.C.M.A.(O.A.B.) Poona. Civilian gazetted officers are also paid as above while they are in field areas.
- (b) Other Ranks (O.R.).**—Each soldier has an I.R.L.A. maintained by the officer in charge field pay office attached to respective record offices. For other ranks who have no records office I.R.L.As. are maintained by the F.C.M.A. (O.Rs.). Pay accounts of non-gazetted civilian staff (except casual labour) serving in field areas are also maintained on this system.

Part II Orders form the basis of these accounts. All promotions, reversions, appointments and discharges are published in these orders and are adjusted by the field pay office. All other ranks draw advances of pay limited to their entitlements as recorded in their pay books on Acquittance Rolls (A.F. N1513) from the specified imprest holders. These rolls are prepared in triplicate, and exhaustive instructions for their preparation are given on the reverse of the duplicate and triplicate copies of A.F. N1513. Two copies of these rolls are sent with the Acquittance Roll Summary (I.A.F. F1099) to the F.C.M.A. (C.H. Section) Poona. These are cleared through the respective I.R.L.As. of other ranks. In case of certain non-imprest holding units in peace areas, advances are drawn from regional C.C.M.A. and Acquittance Rolls with summaries in duplicate (I.A.F. F1099) are sent to field pay offices. This system is called simple

cash account and is fully explained in Section 2. The field pay office closes these I.R.L.As. every month and the debit or credit balances are carried forward from month to month. Quarterly statements of accounts are sent to the commanding officer in respect of each individual for their scrutiny and intimating discrepancies, if any. To keep the accounts up to date, commanding officers should speedily publish and send orders and other relevant vouchers. Necessary entries should also be made simultaneously in the pay books of the individuals.

4. Over Payments.—All payments are adjusted and audited within twelve months from the date of payment. Any over payment discovered within twelve months is recoverable, but an individual can appeal against recovery on I.A.F. A508 in accordance with Rule 167, F.R.I. Pt. I.

5. Irregularities in Personal Accounts of Officers.—All officers can refer direct to F.C.M.A. Poona any irregularities discovered in their accounts for early settlement. All correspondence must be marked with account number of the officer concerned.

Section 2. UNIT ACCOUNTS

6. Responsibility.—A government servant supplied with public funds and/or stores is responsible for their safe custody. He should see that they are expended in conformity with the existing regulations and maintain proper accounts, cash books and supporting vouchers. He should bring to account all transactions, without any reservation and without undue delay. Every officer should bear in mind that his accounts form a unit of the entire system of military accounts and that all receipts and charges should, as far as practicable, be brought into the accounts within the financial year to which they pertain. The commanding officer is personally responsible for all expenditure and signing of vouchers. In special cases he can authorize a subordinate officer to maintain such accounts after obtaining formal sanction.

7. Accounts in Peace.

(a) Public Fund Accounts.—Public funds are those funds which are financed entirely from the public money, the unexpended balance of which is refundable to government in the event of its not being devoted to the objects for which the funds were specified, and also

(i) unissued pay and allowances,

- (ii) office allowance fund, and
- (iii) the estate of deceased men and deserters.

These accounts are inspected periodically by the local audit officer of the area.

(b) **Regimental Accounts.**—Regimental funds comprise all funds maintained by units other than public funds. The commanding officer in the position of a trustee is responsible that these funds are properly applied, with special reference to the object of each, for the benefit of the personnel or unit as a whole and in certain cases for the benefit of subscribers. The funds are sometimes absolutely private, maintained entirely by voluntary subscription from officers and other ranks, and which have received no assistance whatsoever from the government, and in certain cases funds may have been raised with government assistance. At the time of disbandment, recommendations for the disposal of all these funds are submitted to Army Headquarters. The credit balance of one fund is adjusted against the debit balance of the other, and the net credit balance disposed of under orders of Army Headquarters. Detailed instructions regarding disposal of funds are given in Army Orders as amended from time to time. Audit of regimental funds is carried out by a quarterly Regimental Audit Board, consisting of three officers, and not by the Military Accounts Department. Area or sub-area commanders may, however, approach the Controller of Military Accounts concerned to inspect regimental fund accounts of any particular unit. The responsibility of the C.M.A. ceases with the submission of his report to the area or sub-area commander.

(c) **Imprest Account.**—Field imprests are advances of public money issued in bulk to Imprest holders for payment of advances to other ranks and for other miscellaneous expenditure on public service. Such advances are drawn on I.A.F. F1036 from the field cashier or regional C.C.M.A. if the units are located in peace areas. An officer desiring to open a Field Imprest Account obtains the sanction from the Force commander. On the authority of the Force order, F.C.M.A. Poona allots a Field Imprest Number authorizing the particular officer to draw money on that account from the field cashiers on Field Imprest

Holder's Requisition Book (I.A.F. F1036). The Imprest Account is to make advances of pay to other ranks (not to officers) and to make such contingent payments as are authorized in the field and for which pre-audit is not necessary. Lists of such claims and the method of drawing them are given in Army Orders for the guidance of all officers.

All payments from the Imprest Account are entered at the time of payment on the Pay Book (A.B. 64M) and the Acquittance Rolls (A.F. N1513). The paying officer is responsible for ensuring that both the forms are correctly filled in and all alterations/corrections are attested by him. Acquittance Rolls are prepared in triplicate, totalled, dated, numbered serially and signed by the paying officer at the time of payment. Two copies along with the Acquittance Roll Summary (I.A.F. F1099) are sent to the F.C.M.A. (C.H. Section) Poona. The third copy of the Acquittance Roll with a copy of the summary is retained by the Imprest holder to answer any queries. Imprest accounts are maintained in duplicate on A.F. N1531-A which is a simple record of cash transactions, showing all receipts and payments and the opening and closing balances in cash. At the time of disbandment of a unit, the Imprest Account is closed by crediting the balance to the local treasury or with field cashier and after settlement of all objections. On receipt of intimation of disbandment, F.C.M.A. (C.H. Section) sends extracts of all outstanding objections to the local audit officer for verification and settlement on the spot and furnishing a clearance certificate, on receipt of which the Imprest Account is closed. Detailed instructions are given in the Field Imprest Holders Instructions (1947 edition).

- (d) **Non-Imprest Holding Units.**—In peace areas there are certain units which are not allotted any Imprest Account. Such units maintain simple cash accounts for the disbursement of advances to other ranks. These advances are drawn by the units from the regional C.M.A. for disbursement of pay on Acquittance Rolls. A simple cash account is rendered to the C.C.M.A. at the close of each month, showing on the credit side all amounts drawn from him, and number and dates of Acquittance Rolls and their summaries on the debit side. The closing credit bal-

ance is carried over from month to month. Like Imprest Accounts, no claim other than these advances can be paid from this account. After payment the Acquittance Rolls, supported by the summaries (I.A.F. F1099), are forwarded by the units to the field pay office concerned. The officer in charge field pay office acknowledges the rolls direct to the Command C.M.A., to whom the cash accounts are submitted to enable him to clear his books. These accounts are audited by the Local Audit Officer.

8. **Accounts in the Field.**—Only Field Imprest Accounts as described above are maintained with the exception of drawing advances on I.A.F. F1036. In the field these advances are drawn from the field cashier and not from the C.C.M.A. as in peace. No public fund accounts are maintained, and the Local Audit Officer does not carry out any inspection of other accounts. Regimental accounts, if maintained, are subject to Regimental Audit Boards as in peace.

Section 3. METHOD OF OPERATING ACCOUNTS

9. **General Instructions.**—The method of keeping unit accounts is laid down in Financial Regulations and elucidated in the pamphlet "Regimental Accounts." The accounts must be kept neatly and accurately and the double entry system is used. All corrections must be initialed and no entries are to be overwritten or erased. Entries must be supported by necessary vouchers/receipts, which are serially numbered and quoted in the appropriate column.

All transactions between the officer in charge funds and the accounts officer are by means of the following cheques:

- (a) Red (I.A.F. A175)—for depositing cash in Regimental Treasure Chest (R.T.C.).
- (b) Black (I.A.F. A176)—for amounts to be drawn in cash from R.T.C.
- (c) Yellow (I.A.F. A177)—paper transfer of amounts from one fund to the other.

All bank transactions, investments and deposits are entered in the appropriate treasure chest ledgers, supported by Red or Black cheques operated by the accounts officer.

All bank cheques are first paid into the R.T.C., from where cash is issued to persons concerned supported by black cheques.

10. Regimental Treasure Chest Committee.—A committee is appointed in each unit to operate R.T.C., consisting of:

President	The Second-in-Command.
Members	Accounts Officer.
	Cashier.

The committee generally carries out two surprise checks of R.T.C. and scrutinizes the cheque and pass books of the banks, and on the first of every month physically checks the cash in R.T.C.

11. The President of R.T.C. Committee.—He supervises the working of the accounts and advises the commanding officer regarding the improvement of public and regimental funds.

12. Accounts Officer.—In every unit a selected officer is appointed as the accounts officer, who maintains the following books:

- (a) Public and Regimental Treasure Chest Cash Account.
- (b) Public and Regimental Fund Ledgers.
- (c) Public and Bank Account.
- (d) Regimental Fund Book Account.

The Accounts Officer receives and makes all payments and makes necessary entries in his books. All cheques are properly marked either "Public" or "Regimental." He ensures that no counterfoils of cancelled cheques or vouchers are detached and destroyed. All cancelled cheques are crossed and word "cancelled" written across in red ink.

At the end of each month the Accounts Officer prepares a Form "A," giving the statement of balances. This is circulated to all officers who operate accounts for their signatures. When balances differ a Reconciliation Statement is made out. All account books and bank statements are shown to the commanding officer every month for his verification and signatures.

The Accounts Officer carries out two surprise checks of the Treasure Chest every week and verifies the cheques and cash with the cashier. It is his responsibility to ensure that accounts are audited regularly.

13. Cashier.—The Subedar-Major or the Senior Subedar is responsible for the R.T.C. He receives and makes cash payments from the R.T.C., and keeps the key of the R.T.C. on his person and is responsible for the cash in R.T.C. at all times.

14. On Relief of Operator/Accounts Officer.—When any account is transferred from one officer to another, the holder balances the account on the date of handing over and produces the bank statement, giving the latest position.

The officer taking over accounts ensures:

- (a) All cash balances are correct.
- (b) All entries are properly supported by vouchers/receipts.
- (c) All accounts have been properly checked and audited.
- (d) All ledgers are properly kept and balanced up to date.

After the transfer has taken place the officers sign a certificate: "It is certified that accounts have been properly handed/taken over and are arithmetically correct."

Section 4. PENAL AND OTHER DEDUCTIONS

15. Recoveries for Public Losses.—All recoveries for public losses are made by deducting the amount from the individual's pay. The losses are intimated by the authorities concerned to the Paying Officer, who records the amount to be deducted in the soldier's Pay Book. The list of deductions to be made is also sent to the Central Office of C.M.A. or Record Office, which ever is operating the accounts.

Recoveries from officers are made through their pay bills by F.C.M.A. Poona.

16. Barrack Damages.—Barrack damages and other losses of government property to be paid by the individual held responsible are charged off as in para. 15 above. When responsibility cannot be affixed the charges are proportionately shared by men held indirectly responsible.

The extent of losses to be shared by the individuals are published in Part II Orders, and recoveries made as in para. 15 above.

In case of losses where no individuals can be held responsible, the unit as a whole may have to share the charges. Where no responsibility is affixed, the amount may have to be written off at the public expense.

17. Other Recoveries.—All other recoveries are also made through the pay bills/I.R.L.As. of the individual concerned. The

paying authority is informed of all deductions to be made and they are regularly adjusted.

18. Family Allotments.—The individual officer/other rank informs the paying authority the amount of money to be paid to the family, giving the address of the family and the method of remittance. The money order and bank charges are deducted from the pay of the individual.

Section 5. AUDITS

19. Regimental Audit.—This audit is conducted by board of army officers arranged under the orders of local commanders. There is no representative of the Military Accounts Department on the board.

20. Internal Audit.—This audit is conducted by the Military Accounts Department. The list of various claims and whether they are payable by the regional C.C.M.A. or F.C.M.A.(O.Rs.) are given in Orders. In addition to inspection and local audit of accounts of certain units and formations in operational areas, the Deputy Controller of Military Accounts occasionally visits various stations and brigade headquarters, and maximum benefit from his visits should be obtained by units by getting his assistance to remove accounting difficulties, if any.

21. Test Audit.—In addition to the internal audit done by the Military Accounts Department, there is a statutory audit named as "Test Audit," done by the representatives of Auditor-General in India. The Test Audit of certain accounts of certain units is taken up at the discretion of the Director of Audit, Defence Services, who submits his reports to the Auditor-General in India for the guidance and assistance of the Public Accounts Committee.

22. It is imperative that all commanding officers extend full co-operation to the audit parties, who are meant, in principal, to guide the units in the proper maintenance of accounts. They can be consulted on all doubtful points. The objections raised by them require prompt attention and expeditious action should be taken to clear them. Such objections are never raised with any prejudiced mind, but their duties in regard to proper accounting warrant making such remarks as to help the units to maintain proper accounts. If their guidance is taken in that spirit, the accounts can be set perfectly right in very little time.

Section 6. PENSIONS

23. Types of Pensions.—There are the following three types of pensions:

- (a) **Service Pension.**—Granted on retirement for long and meritorious service. It is normally admissible after a minimum of fifteen years' approved service. The additional concessions for increased service on a graduated scale are laid down in Pay and Pension Regulations.
- (b) **Disability Pension.**—Granted to a person if he is invalided out of service with assessed disability of 20 per cent. or above attributable to military service. The rate of pension varies with the rank, service and percentage of disability of the individual.
- (c) **Family Pensions.**—Granted to wife and children of deceased personnel whose death is attributable to military service. The rate of special family pension depends on the rank and service of the deceased at the time of his death.

In addition to the family pension, the families of officers killed in action are awarded lump-sum gratuities.

24. Procedure for Payment.—Pension claims are initiated by individual/competent authorities as follows:

- (a) **Service Pension.**—The individual before retirement puts in a formal application for pension to the C.M.A.(P.) New Delhi at least a month before proceeding on leave preparatory to retirement.
- (b) **Disability Pension.**—The competent authority submits a claim for pension as soon as the Medical Board proceedings have been countersigned by Assistant Director of Medical Services.
- (c) **Family Pension.**—As soon as the casualty occurs the competent authority submits a claim for family pension.

25. Payment Agencies.

- (a) Payments are made on the authority of C.M.A.(P.), who may sanction the grant of an "Anticipatory Pension" if the normal procedure is likely to delay settlement and cause hardship to the individual/family concerned. In case of disability and family pensions, once prima facie evidence regarding attributability has been established,

the C.M.A.(P.) can sanction "Pending Enquiry Awards" if the formal sanction is likely to take more than a month.

- (h) All sanctions for pensions are notified by C.M.A.(P.) in a Pension Circular, copies of which are forwarded to Disbursing Officers.**

A pension certificate is forwarded to the beneficiary by the C.M.A.(P.) through the unit post office concerned. The beneficiary gets the pension from the Disbursing Officer on presentation of this certificate.

- (c) The Disbursing Officers/Agencies make payments through Treasuries/Post Offices/Banks. Pension up to Rs50 per mensem may be paid by money orders at the option of the beneficiary.**

CHAPTER XXXIV

CLAIMS AND PAYMENT OF COMPENSATION

1. Types of Claims.—Claims are generally in respect of:

- (a) **Persons**—when a person is injured or killed by military personnel or doing military duty.
- (b) **Property**—when movable or immovable property is occupied, damaged or destroyed by military occupation or action.

2. Submission of Claims.—The injured person submits a claim giving all necessary details supported by authentic documents to the authorities concerned. In operational areas generally, Claims Commissions are established to investigate all claims and make necessary payments. Where such commissions are not appointed, the local formation commander has to investigate or dispose of the case as explained in para. 7 below.

3. Investigation of Claims.—The local commander assembles a court of inquiry which is generally ordered to give an opinion and NOT to admit any liability for the accident.

- (a) Full statements of witnesses are examined by the Court.
- (b) In all accidents on public roads it is best to inform the police and to record the accident at a police station. A.F. A3676 should be filled in and the entries completed, with a neat, simple sketch, with measurements. If possible, a photograph of the scene of accident should be taken.

(c) Action in Unit.

- (i) The driver must report an accident immediately on completion of a journey or on return to the unit and hand in A.F. A3676. Failure to report an accident is an offence which calls for severe disciplinary action.
- (ii) Commanding officer or another officer of the unit must interview the driver at the earliest possible moment and ensure that the civil police has been informed.
- (iii) The commanding officer should then examine the form A.F. A3676 and ensure that all sections up to "L" have been completed. Sections "M," "U," "Z" should then be filled in and two more copies of A.F. A3676 completed up to Section "T" and signed both by commanding officer and the driver.

4. In criminal cases of culpable homicide and wilful destruction of property, disciplinary action is taken according to military law, and claims for compensation are preferred after judicial action has been completed.

5. The majority of compensation claims are due to traffic accidents, and therefore it is necessary to understand the drill thoroughly. The principle for compensation is to prove that loss or damage is not due to any fault of the injured party.

6. When an accident occurs, the following action should be taken:

(a) On the scene of accident:

- (i) Attend to the injured.
- (ii) Complete Accident Report A.F. A3676 in respect of all injured persons.
- (iii) If the injured person is not unconscious, section "F" of A.F. A3676 should be filled in and section "K" given to him. If he is unconscious, section "F" should be filled in as early as possible and handed over to the policemen or hospital official. Section "T" should be completed.
- (iv) One copy (not original) of A.F. A3676, with copy of any available statements of military witnesses, should be dispatched within forty-eight hours to

the local formation headquarters. The original copies of A.F. A3676 and military witnesses' statements are retained by the unit for record.

- (v) It is best to have a court of inquiry in each case, and if civilians are involved it is advisable to have a civil official included in the court of inquiry as a co-opted member of the court. When a court of inquiry has been held on a traffic accident, a copy of the proceedings and third copy of A.F. A3676 will be sent to the formation concerned.

7. Disposal of Claims.—On receipt, all claims are numbered and registered by "A" staff at a formation headquarters, who are responsible for investigation and disposal of all claims arising out of traffic accidents involving military vehicles. This is divided into the following four distinct stages:

(a) Investigation—First Stage.

- (i) On receipt of first copy of A.F. A3676, evidence from all available sources is called for.
- (ii) The court of inquiry proceedings are completed in all respects, and a priced work order and damage report showing extent of damage to the civil vehicle from military workshops is attached.
- (iii) Medical report in triplicate in cases of injuries are attached.

(b) Post-Investigation—Second Stage.

- (i) If evidence shows that the claim should NOT be accepted, reasons should be given in full to the claimant.
- (ii) If the evidence shows that the claim is to be admitted, the question of the amount of compensation will have to be carefully considered.
- (iii) Advice will be sought from the civil authorities for the identification of the claimants and for the establishment of their legal interests in the claim.
- (iv) In certain cases where damage is caused to civil vehicles and when such vehicles are insured with a civil insurance company, payments can be made on any of the following bases:

Knock for knock: Each party paying in full the cost of damage to the other.

Halving: Both parties suffer half the total loss or damage to both civil and military vehicle.

Clause 13: Each party pays half of other party's claim.

- (c) **Finalisation—Third Stage.**—Whether the claim has been admitted or repudiated, a detailed report will invariably be sent to the competent financial authority in accordance with Appendix “D” of the manual of instructions for officers of claims commission.
- (d) **Payment—Fourth Stage.**—On a claim being admitted, action will be taken as follows:
- (i) Sanction of the competent financial authority obtained for making payment.
 - (ii) Receipt and discharge form will be prepared in duplicate and forwarded to the claimant for obtaining his signatures.
 - (iii) A contingent bill supported by the competent financial authority's sanction and receipt and discharge form submitted to the controller of military accounts for payment.

8. Claims Pertaining to Property.—Disposal and payment of such claims is the responsibility of Lands, Hirings and Disposals (L.H. & D.) Service. Initial investigation is carried out by “Q” staff. Claims are investigated through a court of inquiry in the same manner as claims for traffic accidents. Initial applications for compensation are addressed to L.H. & D. Service. On completion of investigation, cases with the recommendations of the formation commander are forwarded to L.H. & D. Service for disposal in accordance with L.H. & D. regulations.

9. Damages to property fall under the following headings:

- (a) Wilful damage and neglect.
- (b) Fires, explosions and acts of war.
- (c) Fair wear and tear due to natural causes.

10. All applications for claims are preferred to the unit concerned with copies to local superior formation. Preliminary investigation is carried out by the unit, who reports the claim with the findings to the L.H. & D. Service at formation headquarters. L.H. & D. do the investigation, NOT “Q” staff. The L.H. & D. refer the case to “Q” staff, who carry out detailed investigation.

11. Claims categorised as per para. 9 (a) above constitute a charge against the units and the costs are recovered from the units under instructions of the formation concerned.

12. Damages due to fire, explosion and acts of war are investigated by a court of inquiry, and the proceedings with recommendations of the formation commander forwarded to L.H. & D. Service for disposal.

13. Damages due to fair wear and tear and natural causes—e.g., storms—do not constitute a claim against the government and are borne by the owner.

PART VIII

INTERIOR ECONOMY

Chapter XXXV. The Officer and His Duties.

Chapter XXXVI. Junior Commissioned Officers, Other Ranks and Civilians.

Section 1. Junior Commissioned Officers.

Section 2. Other Ranks.

Section 3. Civilians.

Chapter XXXVII. Discipline, Morale and Welfare.

Section 1. Discipline.

Section 2. Courts-Martial.

Section 3. Morale.

Section 4. Welfare.

CHAPTER XXXV

THE OFFICER AND HIS DUTIES

1. An Officer.—The efficiency of the Army depends on its officers: so does its discipline on their character. Officers must maintain a very high moral code, without which the Army can neither be healthy nor happy.

By constant endeavour every officer must attain a thorough knowledge of his profession and gain the confidence of the men placed in his charge. He should become an example and place his duty before self.

“Duty to your Country comes first, always and every time.

The duty to your men comes next.

Your own comfort and ease come last, always and every time.”

A smart, keen, intelligent and high principled body of officers will produce an efficient, disciplined and contented body of men.

To maintain this high standard, the cream of Indian youth is recruited into the officer cadre.

2. Recruitment of Officers.

- (a) The officers for the Regular cadre are selected by competitive examination held bi-annually by the Public Service Commission in Delhi. The age of the candidate has to be within 15 and 17 years.
- (b) The successful candidates are then put through a Selection Board to ascertain their personality and leadership qualities.
- (c) The successful candidates are sent to the Inter-Services Wing of the National Defence Academy, Dehra Dun.

3. Training Cadets.—The candidates undergoing training for any arm of the Armed Forces are termed cadets and receive training in the two wings of the National Defence Academy at Dehra Dun.

- (a) **Inter-Services Wing.**—Takes candidates between the ages of 15 and 17½ years, and after a course of two years prepares them for training at the Military Wing, Naval or Air Force Establishment.
- (b) **Military Wing (Post-War Army).**—For cadets from the Inter-Services Wing the course is of two years' duration. Those successful are granted commissions.
- (c) **Military Wing (Interim Period).**—Due to the shortage of officers owing to sudden replacement of British officers, it has been found necessary to increase the number of officers by direct recruitment and training at the Military Wing. Candidates between the ages of 18 and 21 years are selected by the Federal Public Service Commission and, after passing the Selection Board test, do a two years' course at Dehra Dun, except for qualified engineers, who do a one-year course, and age limit is up to 26 years.
- (d) Ten per cent. of the vacancies are reserved for National Cadet Corps candidates, who are selected by Selection Boards.

4. Grant of Commission.

- (a) After a successful course at the National Defence Academy the cadets are commissioned in the Regular cadre of the Army. The names are published in the *Gazette of India* and officers are commissioned as Second-Lieutenant.
- (b) Due to the departure of British officers, it was necessary to fill the gap amongst senior ranks by granting permanent Regular Commissions to officers from the following sources:
 - (i) *Indian Emergency Commissioned Officers (I.E.C.Os.).*—Further grant of Emergency Commission has been stopped and those found to be of acceptable grade by Selection Boards are granted Regular Commissions.
 - (ii) *Army in India Reserve of Officers.*—As in b(i) above.

- (iii) *Released I.E.C.Os.*—Released I.E.C.Os. not above the age of 36 at the time of first commission are eligible for grant of Permanent Regular Commission (P.R.C.) if selected by a Regular Commission Selection Board.
- (iv) *Upgrading on Appeal.*—Officers graded low by Services Selection Boards may, on appeal by their commanding officer/senior officer, be recommended for upgrading by an Appeal Board at Army Headquarters, consisting of senior officers, and granted Short Service or Permanent Commissions.
- (c) In order to provide the requisite number of officers for the armed forces, without blocking the promotion scale of the Regular cadre, two new types of commissions have been started:
 - (i) *Short Service Regular Commission*—for a period of 3 to 5 years, extendable with the consent of the officer concerned.
 - (ii) *Temporary Commissions*—for one year or so long as services are required. NO further Temporary Commissions are being granted.

5. Posting of Officers.—On first commission, the officers are posted to their choice of arms depending on their capabilities. They are commissioned as Second-Lieutenant and remain on probation for one year. Their names are duly published by the Military Secretary in the Army List. From the date of posting the officer becomes eligible for all benefits and responsibilities of the service.

6. Substantive Promotions.

<i>Rank</i>	<i>Period for Substantive Promotion</i>
Second-Lieutenant	—
Lieutenant	After 2 years of service.
Captain	After 6 years of service.
Major	After 13 years of service.
Lieutenant-Colonel ..	Selection.
Colonel	Selection.
Brigadier	Selection.
Major-General	Selection.
Lieutenant-General ..	Selection.
General	Selection.

7. Seniority and Substantive Promotions.—Seniority counts from the date of being granted the rank. Unless an officer loses seniority by punishment he remains senior to the man next to him in the Army List.

After an officer has completed his requisite probationary service his substantive rank is published in the *Gazette*. The substantive rank has affect on pension.

8. Acting Ranks.—Due to the fact that very junior officers are holding senior appointments without the requisite service for substantive promotion, the grant of acting rank has been authorized.

The ranks for appointments are laid down in the P.E. W.E. of the unit, and promotions to that are made by the commanding officer after the incumbent has fulfilled the duties for 21 days. Acting ranks have no affect on seniority, substantive rank and pension.

Before acting rank can be granted the holder must have completed the following prescribed periods of reckonable service:

Captain	..	..	..	3 years.
Major	..	..	..	5 years.
Lieutenant-Colonel			..	6½ years.
Colonel	..	..	..	8½ years, with a minimum service of 2 years in the rank of Lieutenant-Colonel.
Brigadier	..	..	..	12 years, with a minimum combined service of 3 years as Lieutenant-Colonel and Colonel.
Major-General	..	..		20 years.
Lieutenant-General			..	25 years.

9. System of Promotion.—Substantive promotion up to the rank of Major is on a time basis and after that by selection. Names of officers are submitted to the Selection Boards, which after consideration of the seniority and qualifications, accept, recommend or reject the names submitted.

All promotions of officers above the rank of Lieutenant-Colonel are controlled by Military Secretary at Army Headquarters.

10. Confidential Reports.—The promotion of an officer depends on his annual confidential report, which is initiated by his immediate commander. The report is initialed by the officer and, after

the remarks of the superior commanders have been entered, the report is recorded in the Military Secretary Branch at Army Headquarters and forms the dossier of the officer.

11. The following types of reports are now in use:

- (a) **Annual Confidential Reports.**—For Majors and above (Form A.F. B2078) and for Captains and below (Form A.F. B2077).

Reports are initiated annually and are shown to and initialed by the officer reported on.

- (b) **Interim Reports.**—To cover such cases where the officer reported on has not served for the whole year under report and the initiating officer considers it necessary in the interest of the service and officer. It is submitted on the same form as for annual report, with the heading suitably amended.

- (c) **Special Reports.**—An adverse report on any officer is submitted on Form A.F. B194E. Before the report is initiated the officer must be warned twice in writing. The report is shown to and initialed by the officer reported on, who can appeal against it. The appeal should accompany the report. The report is submitted in duplicate and cannot be used for disciplinary cases.

- (d) **Manuscript Report.**—A manuscript report in the form of a letter is forwarded to Army Headquarters through normal channels. The report is initialed by the officer reported on, who can submit a representation.

The manuscript report is submitted when report on A.F. B194E would be inappropriate or when it is required by Army Headquarters for a special purpose—i.e., whether an officer is recommended for appointment or advancement or after three months after posting to an appointment.

- (e) **Review Reports.**—A review report is submitted after the expiry of the period under which an officer may have been under review. Such a report is submitted either on A.F. B194E or on the manuscript form, whichever is considered appropriate.

Any officer NOT below the rank of a Major-General can place an officer under review and call for a review report.

12. Courses.—Every officer has to attend courses considered necessary for his professional knowledge. The details and duration of the courses are published in Army Orders. Every officer must endeavour to attend as many courses as possible to obtain necessary qualifications for promotion and should endeavour to do well. Before nomination the officer is given ample opportunity to prepare for the course through unit cadres and attachments.

13. Examinations.—For promotion up to the rank of Major, Regular officers have to pass the following examinations conducted by Army Headquarters:

- (a) Retention Examination: Before completion of three years of service.
- (b) Promotion Examination: Before grant of substantive promotion from Lieutenant to Captain and Captain to Major.
 - (i) Part A—Practical Examination for promotion
Part B—Written from Lieutenant to Captain.
 - (ii) Part C—Practical Examination for promotion
Part D—Written from Captain to Major.

All officers must pass these examinations before they can be promoted to the next substantive rank, and those Lieutenants and Captains who fail to pass before 6 and 13 years of service respectively are NOT kept in the Army.

The practical test includes tactical exercises without troops and technical questions for specialist officers. The written part has papers on tactics, administration, law, current affairs and special for technical corps officers.

14. Pay and Allowances.—The main features of the New Pay Code (for all officers except those who formerly held King's Indian Commissions) are:

- (a) Fixed pay scales which are dependent not only on rank but also, in the case of Lieutenant-Colonels and above, on total service as a commissioned officer.
- (b) Abolition of all forms of additional pay and allowances other than parachute and qualification pay.
- (c) Dearness allowance according to the cost of living assessed and according to the pay of rank.
- (d) Expatriation allowance for those serving overseas.

15. The rates of pay and allowances are:

(a) **Pay.**

Second-Lieutenant ..	Rs350-400
Lieutenant	Rs400-450
Captain	Rs450-600
Major	Rs700-1,050
Lieutenant - Colonel	Rs1,100-1,400
Colonel	Rs1,450-1,600
Brigadier	Rs1,650-1,800
Major-General ..	Rs2,000
Lieutenant - General	Rs2,500
General	Rs3,000

(b) **Allowances.**

Officers on the above rates of pay are entitled to the following allowances:

- (i) *Outfit Allowances.*—On first commission Rs800, and the same amount after every seven years of effective service.
- (ii) *Camp Kit Allowance.*—Officers required to maintain camp kit receive a free issue of camp kit or Rs100 in lieu.
- (iii) *Interpreters' Allowance.*—According to qualification as laid down in Language and Pay and Allowance Regulations.
- (iv) *Entertainment Allowance.*—For Brigadiers and above when in command of independent formations.
- (v) *Award Allowance.*—Allowances attached to awards and decorations are NOT given to officers.
- (vi) *Funeral Allowances.*

(c) **Concessions.**—The rates of pay being “all in,” the officers have to pay for all facilities provided by the government in kind—e.g., house rent for accommodation. The following concessions are, however, available:

- (i) Officers living in government quarters are provided with an authorized scale of furniture, electricity and water at concessional rates.
- (ii) Officer entitled to married accommodation when not provided with such accommodation will receive free accommodation and allied services for himself at that station.

16. Leave and Allowances.—Leave is a privilege and is granted according to the exigencies of service. It is classified as follows:

- (a) **Casual Leave.**—A maximum of 20 days in each calendar year. Normally granted for 10 days at a time, but extendable to 14 days. This leave counts as duty and cannot be utilized to supplement any other form of leave or absence.
- (b) **Annual Leave.**—Sixty days in each calendar year. This leave cannot be accumulated and cannot be availed unless the individual has actually performed duty during that year. Annual leave can be taken in instalments within the same year and is also extendable to the next calendar year without prejudice to the annual leave authorized for the year in which the extended leave expires, but of course only after the individual has actually performed duty. Officers remain on the strength of the unit and NO acting promotions are authorized in place.
- (c) **Furlough.**—Two months every three calendar years. This leave is non-accumulative, but can be combined with annual leave. During furlough only 50 per cent. of pay of the rank held at the time of proceeding on leave is admissible. Leave ex-India may be granted as under:
 - (i) On the recommendation of a medical board.
 - (ii) For study or recreation.
 - (iii) For settling vested interests overseas.
- (d) **Sick Leave.**—Sick leave on medical certificate is admissible for a period up to 6 months in the first instance, inclusive of the annual leave due for that year.

On the authority of the competent Medical Board and provided there is reasonable prospect of the officer becoming fit for duty, extension of sick leave for 3 months at a time can be permitted up to 12 months. This can be further extended to 24 months at the discretion of the authority competent to sanction leave.

During sick leave full pay of rank is authorized for a period of 6 months, including the annual leave for that year. Furlough rates of pay are admissible for the period of sick leave for which full pay is not due.

When officers are invalided out of the service they are granted leave up to a period of 8 months commencing from the first day of absence from duty on account of dis-

ability. In addition, the officer is granted leave due to him under the Release Regulations.

- (e) **Leave pending Retirement/Resignation.**—Leave pending retirement/resignation is granted for a period of 6 months inclusive of all annual leave and furlough due to the officer.

17. Responsibilities of Officers in General.—Every officer should perform his duties conscientiously and should submit all reports and returns accurately as a point of honour. The officer must be punctual in the performance of his duties and must always be acquainted with all the rules and regulations. Ignorance of the law is NO excuse.

The officer's duties can be divided into the following categories:

- (a) Personal duties.
- (b) Regimental duties.
- (c) Staff duties.
- (d) Command duties.

18. Personal Duties.—In this category must be included the obligations of the officer to himself and his family, which must be undertaken and followed with dignity. His personal relations with his seniors, equals and subordinates must be harmonious.

Every officer must demand proper respect from juniors and should be most respectful in his conduct to the seniors.

The morale of an officer, which depends on leadership, comradeship and self-respect, must be of high order and by determination he must surmount all discomforts and dangers.

All officers must be members of the Mess and must observe the Mess rules properly. Mess bills are regimental debts and must be paid regularly and punctually.

All officers must take part in sports with their men for personal health and to produce *esprit de corps*.

19. Regimental Duties.—It is the responsibility of every individual officer to produce *esprit de corps* and a spirit of co-operation amongst all ranks of the regiment by personal example. He must always endeavour to further the good name of the unit.

Officers must always ensure that the behaviour of men is correct and should strive to know the names and characters of men under his command.

In a regiment every officer has to perform certain regimental duties, like Duty Officer of the week or Orderly Officer of the day, when he carries out certain specific duties.

It is the duty of an officer to see that the turn-out and drill of the men of his regiment are perfect and to see that all security arrangements are properly observed at all times.

All officers must prove by constant effort that they take interest in the happiness, comfort and contentment of their men. They must insist on all ranks being of good cheer and high morale.

20. Staff Duties.—Every officer has to perform certain staff duties when he is regimentally employed or on extra-regimental employment (E.R.E.).

In the unit he may have to prepare reports and submit returns. These must be accurate and sent in time.

All officers must rigidly observe the proper chain of command. All irregularities must be reported to the senior commander, who must decide all policy matters.

21. Command Duties.—Each officer must be trained to take responsibility and command the men of his unit.

Every officer must know how to give orders and ensure that they are carried out. Power of command is not a quality acquired in a day, but is gained by constant practice and endeavour over the whole period of service.

An officer should never allow irregularities, however trivial they may appear, in his command and should know how to reprimand and congratulate men.

The senior officer present on parade and in the Officers' Mess and at all times and places is held responsible for discipline and demeanour of those present and must ensure that there is no impropriety and irregularity. On parade all officers while addressing each other must invariably prefix the rank of the officer addressed to. A senior must invariably be addressed as "Sir." All officers must be particular in taking and giving salutes.

Whilst on duty every officer must be firm and strict in exacting implicit obedience from all ranks, but when off duty should treat them with consideration and kindness. An officer should never show favour or prejudice against any man.

CHAPTER XXXVI

JUNIOR COMMISSIONED OFFICERS, OTHER RANKS AND CIVILIANS

Section 1. JUNIOR COMMISSIONED OFFICERS

1. **Definition.**—The designation of J.C.O. rank has undergone many changes since its inception. During the régime of the East India Company, J.C.Os. were known as Native Officers (N.Os.). On the formal establishment of the (British) Government of India, they were known as Indian Officers (I.Os.). With the creation of the appointment of the Viceroy, they were referred to as Viceroy Commissioned Officers (V.C.Os.), and since the cessation of the appointment of the Viceroy they are known as Junior Commissioned Officers (J.C.Os.).

2. The rank and appointment of a J.C.O. are peculiar to the Indian Army and they were created because the British officers, due to the natural handicaps resultant of their foreign nationality, could not directly exercise the necessary control over and establish close liaison with the other ranks. The rank was invested with certain powers and privileges of a commissioned officer. The great importance which the J.C.Os. gained under such an arrangement made them the backbone of the Indian Army. In spite of the recent nationalization of the officer cadre, the J.C.O. rank still remains and will continue to remain the backbone of the Army and, therefore, must be treated with due consideration and respect. This rank is obtainable only through long and meritorious service in the ranks and thus J.C.Os. are a great asset to the Army.

3. **Appointment and Responsibilities of J.C.Os.**—J.C.Os. are commissioned and gazetted officers. In all units the establishment

is such that for every appointment of an officer there is an appointment of a J.C.O., who thus becomes the second-in-command, and as such the J.C.Os. share almost equal responsibilities with the officer in all matters of efficiency, welfare and administration of the unit/sub-unit. In cases of smaller sub-units (platoon, etc.), J.C.Os. are commanders themselves.

4. The rank of a J.C.O. is attainable normally through long and meritorious service in the ranks, though in special cases direct commissions may be granted.

5. A N.C.O. can normally be promoted to the rank of J.C.O. if he is considered fit in all respects and has passed the prescribed promotion examinations. In spite of having the necessary qualifications, all promotions of N.C.Os. to the rank of J.C.Os. are by selection.

6. A Jemadar can serve for the maximum period of 24 years of total service. A Subedar/Risaldar can serve for the maximum period of 28 years of total service. A Subedar-Major/Risaldar-Major can serve for the maximum period of 5 years in his appointment or 32 years of total service whichever is earlier. This period is extendable only in exceptional cases.

7. **Honorary Ranks.**—J.C.Os. of outstanding service may be granted during service or on retirement the honorary rank of Lieutenant or Captain. They, however, remain J.C.Os. and do not gain any extra power or status.

8. Havildars Daffadars holding special appointments and after outstanding service may be given the honorary rank of a Jemadar only on retirement.

9. **Documentation.**—Documentation in the case of J.C.Os. is exactly the same as for the O.Rs. J.C.Os. are paid, like them, from unit Imprest on acquittance rolls. Hence accounting for pay, allowances and pensions is done by officer in charge Records of Regimental Centre, exactly in the same way as for O.Rs. In the case of promotion of a N.C.O. to the rank of a J.C.O. the casualty is entered in the sheet roll and in the pay book. No fresh or new documents have to be prepared.

10. **Pay, Allowances and Pensions.**—Different rates of pay for different groups of J.C.Os. and O.Rs., according to the nature of their duties, are given in Army Instructions. Infantry J.C.Os.

(Group F) are paid at the following rates, excluding dearness allowance at normal rates:

Rank	Initial pay/increment	Maximum pay
(a) Jemadar	Rs90; Rs5 per year for 3 years (total Rs15).	Rs105
(b) Subedar	Rs130; Rs10 per year for 3 years (total Rs30).	Rs160
(c) Subedar-Major	Fixed pay Rs250.	

11. Gallantry awards and certain decorations and honorary ranks of officer also give the J.C.O. certain lifelong allowances. Special appointments such as Jemadar-Adjutant carry with them extra allowances for the incumbents.

12. **Accommodation, Furniture, Clothing and Rations.**—J.C.Os. get free service as O.Rs. as given in later paras.

13. **Promotion and Privileges.**—Posting of J.C.Os. and their promotion are generally on a regimental/corps basis of seniority and merit as recommended by the respective commanding officers. The regimental centre commander maintains the logs of J.C.Os. and N.C.Os. in all the units of the regiment, and, when any vacancy occurs, forwards the names of the N.C.Os. on the top of the list for recommendation to all the commanding officers of the units. The names after selection are forwarded to Adjutant-Generals Branch, Army Headquarters, for gazetting.

14. J.C.Os. get the same leave concessions as O.Rs. as given below.

15. A J.C.O. cannot normally award any punishment except a maximum of 3 days' confinement to lines.

16. A C.O. cannot award a J.C.O. any punishment except stoppages as authorized in Section 91 of the Army Act. Only a court-martial or formation commander can award greater punishment to a J.C.O.

17. **Duties of J.C.Os.**

- (a) In major units, the seniormost J.C.O. is the Subedar-Major or Risaldar-Major, who occupies the position of a confidential adviser to the officer commanding and is responsible for keeping him acquainted with every occurrence and condition among the ranks. The excuse that matters had not come to his knowledge is never accepted. He is selected for uprightness of character and personal influence over all J.C.Os. and O.Rs.

- (b) J.C.O. company second-in-command and platoon troop commanders. They are responsible to their company/squadron commanders for training, discipline, welfare and administration of their command. They keep themselves and their superior officers informed of all occurrences that affect their commands.
- (c) Jemadar-Adjutant and Jemadar-Quartermaster. The Jemadar-Adjutant generally assists the adjutant and keeps him informed of every circumstance affecting the discipline of the unit. He is also responsible for the duty roster of the unit. The J.Q.M. assists the Q.M. and inspects the distribution, issues and receipts of all stores, rations, arms and ammunition of the unit.
- (d) In every unit with large body of troops there is generally an educational J.C.O. seconded from the Army Educational Corps.

Section 2. OTHER RANKS

18. Introduction.—The term "Other Rank" denotes combatants, except officers and J.C.Os., which means only sepoy and N.C.Os., but in its broad connotation it includes N.C.Es. as well, but NOT civilians attached to military units, such as religious teachers, schoolmasters, mess servants and private bearers.

19. O.Rs. constitute the bulk of the Army. There is no direct recruitment to the rank of a N.C.O. Everybody has to start from the rank of a recruit. Hence, to get a clear picture of the O.R. class, it is better to study the course of a Jawan from the moment he joins the Army until his connection with it is severed due to death, discharge or dismissal.

20. Enrolment.—Enrolment is done by recruiting officers and also by regimental centres/depots, but not by active units. A person is enrolled if he has the necessary age, physical and domicile qualifications.

21. Documentation after Enrolment.—Enrolment is done on form I.A.F. K1162, which has to be filled in by the enrolee, giving all relevant particulars about himself. Enrolment is voluntary and at present there are two terms of engagement:

- (a) Short service (18 months).
- (b) Regulars (colour service 7 and reserve 8 years for infantry only. Other corps have varying periods of colour and reserve service).

22. After recruitment the Jawan is sent to the regimental centre/depot for training in his particular arm, but before he is attested his antecedents are verified by the police on special form I.A.F. K1152, which has to be filled up in respect of each recruit, showing his address and identification marks, and sent to his district police authorities. If the police submit a satisfactory report the recruit is taken in permanently.

23. The recruit in the centre/depot is given an Army number, which cannot be changed or modified throughout his service either with the colours or in reserve. On all documents this Army number must precede his rank and name.

24. The recruit is issued with his identification card, which is also used for entering all payments made to him and entering all issues of clothing, equipment and arms. The book is called I.A.F. 64 and is popularly known as Lal Kitab (formerly the cover used to be red) or Soldier's Personal Service Book.

This book contains all particulars of the Jawan, including his photograph. All casualties, increments and forfeitures of pay and allowances are entered there. All entries are signed by an officer. This book must always be carried by all J.C.Os. and O.Rs. at all times, and its loss by negligence is a serious offence.

25. The most important document to be filled up in respect of all J.C.Os./O.Rs. is the sheet roll I.A.F. K1155. This form is filled in when the recruit joins the Army and is kept up to date with all necessary particulars up to the time when the O.R. or the J.C.O. leaves the Army. All certificates of education, qualification, commendations and courses, etc., are kept within this sheet roll. Sheet rolls are kept in the Record Offices concerned.

26. Another form, I.A.F. 958, known as Field Service Document, is prepared in respect of each recruit. All entries in the Sheet Roll are reproduced in this form. Unlike the sheet roll, this form is kept by the unit in which the sepoy is serving. When the unit is sent on field service, this form is maintained by 2nd Echelon/Rear party of the unit/Record Office.

A conduct sheet A.F. B122M is also prepared in respect of each recruit. The character of the recruit as assessed from time to time by his superior officers is shown here. All punishments awarded during his service are also entered in full detail in this form.

A dental card is prepared in respect of each recruit. The state of his dental health and treatments are entered in this form by a service dental officer.

27. Training.—In the regimental centre/corps depot, the recruit is trained in his professional duties for nine months. He is also given academic education and special care is taken of his health. On completion of this period of training, the recruit is attested, i.e., he takes the customary oath of allegiance to the head of the State. Now he is fit for service in an active battalion.

28. Promotion and Upgrading.—Rules of promotion are:

- (a) For one year from the date of his enrolment, the Jawan is technically referred to as a "Recruit."
- (b) From the date of enrolment up to two years of total service he is referred to in the second year of his service as "Young Soldier."
- (c) On completion of two years of service, and if he passes the recruit test, he becomes Sepoy Class III, known as "Trained Soldier."
- (d) On completion of three years of service, and if he passes the 3rd class Roman-Hindi (R.H.) test, he becomes a Sepoy Class II "Trained Soldier."
- (e) On completion of four years of service, and if he passes 2nd class Roman-Hindi test, he becomes a "1st Class Sepoy."
- (f) Appointment of sepoys as paid or unpaid lance-naiks, their promotions to the ranks of Naiks and Havildars and the appointments of Havildars as Havildar-Majors and Q.M. Havildars, are governed by rules and regulations formulated by regimental centres, in consultation with the officers commanding active unit. The principles underlying these rules and regulations are in every case the time-honoured ones of efficiency and seniority, with stress on efficiency.

29. Pay and Allowances and Accounting.

- (a) New pay code for infantry soldiers (group F) was introduced in 1947.
- (b) For awards of decorations, O.Rs. and J.C.Os. get the following lifelong monthly allowances: Param Vir Chakra, Rs50; Maha Vir Chakra, Rs30; and Vir Chakra, Rs20 per month.
- (c) All ranks also get extra concessional allowance when they serve in areas declared as concessional areas by Army Headquarters. Rates of such allowance and of allowances for service overseas are given in Army instructions.

30. All J.C.Os. and O.Rs. are paid on Acquittance Rolls (I.A.F. N1513), which are prepared in triplicate. Two copies of these are sent to F.C.M.A., who forwards one copy to the regimental pay and account office, which is situated in the centre. The third copy is kept by the unit. The receiver of money has to put his signature or thumb impression on all the copies against his name, and the amount drawn by him and entries are attested by an officer. The details are given in Pay and Accounting Procedure, Chapter XXXII.

31. Service Pension and Other Reliefs.

- (a) According to the existing Pension Regulations, which are being revised, O.Rs. get pension at the following rates on completion of qualifying Colour service:

Qualifying Colour Service.	Rank.	Pension (per month).
(i) 15 years.	Sepoy Lance-Naik.	Rs5.
(ii) 16 years.	Sepoy Lance-Naik.	Rs6.
(iii) 18 years.	Naik.	Rs9.
(iv) 18 years.	Havildar.	Rs12.
(v) 21 years.	Havildar.	Rs15.

(b) **Service Gratuity.**—In case O.Rs. fail to have the qualifying colour service before retirement/release/discharge for any reason, then they get one final lump sum gratuity as follows:

- (i) If service is over 5 years and less than 10 years, three months' basic pay.
- (ii) If the service is over 10 years but less than 15 years, gratuity of six months' pay.

- (c) **Mustering-out Concession.**—On cessation of war or any emergency which involves great expansion of the Army, a mustering-out concession may be granted to all who are released on general demobilization. The concession is the reduction of the period of the qualifying service for entitlement to service pension.

- (d) **Disability Pension.**—In case of discharge on account of physical/mental disability attributable to military service, a board of service doctors decides the percentage of disability and the findings are recorded on form I.A.F. Y1948. According to the percentage of disability, J.C.Os. and O.Rs. get pension at different rates.

- (e) **Family Pension in Case of Death.**—If death is not attributable to military service, the dependants of the deceased get no pension or any kind of financial relief. If death is attributable to military service, the nominated heir of the deceased gets a family pension at Rs16 per month in case of O.Rs., Rs25 in case of Jemadar, and Rs50 in case of Subedar Subedar-Major.
- (f) **Children's Allowance in Case of Death.**—Apart from family pension, minor children of the deceased get an allowance at the rate of Rs4 in the case of O.Rs. and Rs6 in case of J.C.Os.
- (g) **Death Gratuity.**—In case of death specifically due to enemy action, the heirs of the deceased get a lump sum death gratuity at the following rates:

N.C.Es.	..	..	..	..	Rs75
O.Rs.	..	..	..	..	Rs600
Junior - Commissioned	Officers				Rs1,200

32. **Discipline.**—On commission of any offence specified in the Army Act and Indian Penal Code (I.P.C.), O.Rs., J.C.Os. and officers and all persons subject to the Act are charged with the offence on the offence report- I.A.F. D901. The accused is first produced before his commanding officer, who, according to his powers, either summarily deals with the case or remands it for either court-martial or summary disposal by higher commander. The punishment awarded is entered along with the charge in the individual conduct sheet, I.A.F. B122M. The punishments that can be awarded by various authorities are given in the A.A., Sec. 80.

33. **Duties.**—The duties of all O.Rs., irrespective of their rank, are:

- Acquisition of professional efficiency and skill and maintenance of the same through constant training throughout their service for efficiency in waging war.
- In time of war, to fight against the enemy.
- Looking after the security of the stores and properties entrusted to their care.
- When called upon to do so, helping the civil government in maintaining law and order.
- Performance of fatigues, labour and duties essential for the efficient administration and welfare of the unit and garrison.

34. In all these duties the N.C.Os. act as commanders and leaders of men under their command. The highest N.C.O. appointments carry with them certain extra responsibilities, which are given below:

- (a) **Battalion Havildar-Major (B.H.M.).**—He is responsible for keeping the commanding officer of the unit acquainted with every occurrence, circumstance or condition among the other ranks which may be prejudicial to the general good feeling or interest of the unit. The excuse that matters had not come to his knowledge is never accepted. He assists the adjutant and informs him of every detail affecting the discipline of the unit. The importance of this appointment is so great that the incumbent is specially selected for his uprightness of character and personal influence. He ranks as the seniormost N.C.O. in the unit.
- (b) **Battalion Quartermaster - Havildar (B.Q.M.H.).** — He assists the Quartermaster in his duties and is responsible for inspection, receipt and issue of rations and all stores.
- (c) **Company Havildar-Major (C.H.M.).**—His duties in respect of the company are the same as those of the Battalion Havildar-Major in respect of the battalion.
- (d) **Company Quartermaster-Havildar (C.Q.M.H.).** — His duties in respect of his company are the same as those of the B.Q.M.H. in respect of the battalion, except that in the company he is himself the Quartermaster.
- (e) **Havildar Clerks.**—They perform the clerical duties and are separately recruited for their educational qualifications.
- (f) **Pay Naiks.**—They are responsible for the receipt, issue, safe custody, maintenance and inspection of all arms and ammunition of their companies. They are also responsible to help their company commanders in the disbursement of monthly salary to the J.C.O. and O.Rs.
- (g) **Ammunition Naiks.**—They are responsible to help the B.Q.M.H. in receipt and issue of ammunition.
- (h) **N.C.O. in charge Regimental Police.**—He is responsible for the enforcement of all orders passed for security and hygiene of the unit.

35. Ration, Clothing, Accommodation and Other Concessions.

- (a) All O.Rs. when they are on the strength of any military unit are fed, clothed, equipped, accommodated, transported and medically treated at public expense. In case of loss, destruction or damage to any store issued to them, deliberately or through negligence, they are made to make good the loss/damage and are financially or otherwise punished. When they lose something issued to them, special forms A.F. C-944 and I.F. A-498 are prepared according to the nature of the stores, showing the amount to be made good by the individual. These forms are sent to the Pay and Account Office, where the amounts are debited to the individual's account.
- (b) **Medical Aid.**—Throughout their service, when they are with any military unit, all O.Rs. get free medical inspection, immunization and treatment for every kind of disease and injury. They undergo compulsory periodical medical inspection to ensure sound health. In case of any disability caused by any disease or injury attributable to military service, O.Rs. get a disability pension. When the family of an O.R. stays with him in government accommodation, the family also gets free medical treatment. In all military hospitals in peace stations there are family wards for this purpose.

36. Service.

- (a) **Colour Service.**—Service in the regimental centre or active units from the date of enrolment till the day of retirement or discharge is known as Colour Service. The maximum duration of this service is limited for the O.Rs. according to their ranks as follows:

Sepoys/Lance-Naiks	..	..	16 years
Naiks	..	..	18 years
Havildars	..	..	21 years

During this Colour Service the O.Rs., except for the period of leave, stay in the unit throughout the year. Every year of this service counts towards pension.

- (b) **Reserve Service.**—O.Rs. when they join on regular engagement with infantry contract an agreement for serving 7 years with the colours and 8 years in the reserve. After the completion of the minimum colour service (7 years), if they choose to leave active service, then at the

discretion and recommendation of the commanding officer they are sent to the reserve, where they remain on the effective strength of the regiment and are liable to be called up any time. In reserve service they get Rs5 per month as reserve pension and report to the regimental centre for 2 months a year for training. If O.Rs. complete the maximum colour service they cannot go on the reserve and are sent on permanent retirement and get pension. Half of reserve service also counts towards pension.

37. Amenities/Recreation.

(a) The Army looks after the welfare, amenity and recreation of O.Rs. Special funds are allotted for such purposes. In peace stations there are special arrangements for the welfare of the families as well. In their homes during service and after retirement the D.S.S. and A.B. looks after their welfare.

(b) **Education.**—Throughout their service O.Rs. get free academical education in their own units under unit and Educational Corps instructors.

(c) **Leave.**

(i) *Casual Leave.*—The maximum amount admissible during a year is 30 days, normally for 10 days at a time but extendable to 20 days in exceptional cases. Full pay of rank is admissible.

(ii) *Annual Leave.*—Sixty days in a calendar year except for recruits/boys, who are only permitted 45 days. A unit commander can grant 90 days' accumulated annual leave except for recruits/boys, who are only allowed 45 days' accumulated leave, provided the individual had no leave other than casual leave in the preceding calendar year. Where long journeys over two days are involved, the individual will be permitted leave at the leave station for a minimum period of 56 or 86 days except for recruits/boys, who will be permitted 26 or 41 days at home.

Persons serving overseas who cannot avail of annual leave will be allowed 120 days' accumulated leave in the third year on return to India. During annual leave full pay of rank is admissible.

- (iii) *Sick Leave*.—On the recommendation of the competent medical authority an individual after discharge from the military/civil hospital can be granted sick leave for an unlimited period, provided there is reasonable prospect of the individual becoming fit for duty. The entire period spent in recognized military/civil hospital is treated as duty and full pay of rank is admissible during sick leave.
- (iv) *Leave pending Retirement/Discharge*.—An individual proceeding on leave pending retirement/discharge can avail of the balance of annual leave if any standing to his credit. Those going on retiring pension can be granted another period of 60 days' leave subject to the condition that the total does not exceed 120 days. At the discretion of the commander-in-chief, J.C.Os. may be granted special leave up to a maximum of 12 months pending retirement or in other special circumstances. Leave is granted on full pay.
- (v) *Compassionate Leave*.—In exceptional cases individuals may be granted compassionate leave up to a maximum of 30 days, which will be deducted from the annual leave for the following year if annual leave for the current year has already been availed of.

38. Tradesmen.—In infantry units O.Rs. also include tradesmen, such as carpenters, blacksmiths, tailors, bootmakers and cooks, who are first combatants and then tradesmen and for all purposes are treated as such. They are graded as Class I, II, III, according to their efficiency. This grading is assessed from time to time by a Board of officers. They get trade pay according to their qualifications.

39. Non-Combatants Enrolled (N.C.E.).—These are barbers, sweepers, mess cooks, washermen and mess servants, who do not bear arms and are paid at lower rates. For all other purposes, like accommodation, discipline, rations, clothing, leave amenities, medical facilities, they are treated as O.Rs.

40. Leaving the Army.—O.Rs. and J.C.Os. leave the Army under the following circumstances:

- (a) Retirement on completion of full colour and/or reserve service with service pension.

- (b) Dismissal as a punishment awarded by a court-martial, in which case they lose all benefits of pension and gratuity.
- (c) Discharged as an undesirable element. Since this can happen only in the early stage of service they do not qualify for any pension or gratuity.
- (d) Disability: If disability occurs due to military service, O.Rs. are discharged on disability pension. If disability is not due to military service they do not get any disability pension.
- (e) Compassionate case—for personal or family reasons.

41. In the above five cases, before leaving the Army, O.Rs. and J.C.Os. are sent back from active units to their regimental centre from where they started their career. There all the documentation and financial benefits are worked out and paid before the individual leaves the Army.

42. **Death.**—In case of death while on service the government bears the funeral expenses, and the regimental centre arranges for the financial benefits to the dependants of the deceased if such benefits are due.

Section 3. CIVILIANS

43. Civilians in the Army are of two categories:

- (a) **Superior Grade.**—This includes civilian gazetted officers, departmental officers, supervisors, conductors and controllers in military establishments.
- (b) **Inferior Grade.**—This includes religious teachers, school-teachers, malis, barbers, and dhobies.

44. Civilians are NOT enrolled and are not subject to Military Law, but have to obey the disciplinary rules framed by the officer commanding unit/establishment.

45. Civilians are paid according to the special rates published from time to time. When no definite scales are laid down, local nerrick rates are fixed by a Board of officers.

CHAPTER XXXVII

DISCIPLINE, MORALE AND WELFARE

Section 1. DISCIPLINE

1. **What is Discipline?**—According to General Marshal, discipline is “Cheerful and understanding subordination of the individual to the good of the team. It is the basis of *esprit de corps*, and without it no true camaraderie can exist in any unit.” Every military unit needs discipline to weld it together into a happy team with a sense of unity and pride and consequently fighting spirit.

Discipline has two main functions: first, to teach everyone his sense of duty and to accustom him to perform it well under all circumstances; and, second, to make him overcome his fear and to ingrain in him the habit of automatic and unquestioning obedience amid the gravest of dangers.

Discipline should never be allowed to be lax. Once a lower standard is accepted, it is very difficult to recover the lost ground. By strict observation of regimental/Army and government rules and regulations, by taking part in ceremonies, close order drills, parades and other forms of co-operative training and work, the individual becomes disciplined.

A disciplined soldier would always overcome personal fear, not due to fear of punishment, but through realization that any action contrary to rules would not only be detrimental to himself, but injurious to the whole unit to which he has the privilege to belong and the cause which the Army holds supreme. Thus morale and discipline are closely connected.

Discipline, therefore, has two aspects—the corrective and the appreciative. The former deals with necessary precautions and measures to deal with crime and the latter is connected more with morale, when good actions of the person are adequately rewarded.

2. Crime.—There will always be crime in a unit which consists of men from various strata of life, but a great deal of crime can be traced to faulty administration.

To curb crime, punishment is a good deterrent but not the whole solution. The causes of crime must be found out and eliminated. It is generally due to bad control of the juniormost person in authority. Men commit crime either because they are habitual, or tempted by hope of easy gratification, or are made accomplices by expert crooks. All types of criminals must be suitably dealt with by law and quickly eliminated. The belief of getting away scot-free is the worst inducement to crime. Punishment must be swift and exemplary, but at the same time justice must be proper and legal. It is the responsibility of the commanding officer to investigate all cases of irregularities and crime and take necessary action as laid down in the Manual of Military Law and Regulations for the Army.

The first investigation will generally be made by the company commander. Before a case is reserved for disposal by a commanding officer, the company commander should satisfy himself that all available evidence, whether in the form of witnesses or documents, which bears on the offence has been produced. It is an excellent plan for the company commander at this stage to frame charges in accordance with the specimens shown in the Manual and verify that the evidence supports the charges. This ensures that the accused is being brought before the commanding officer on charges legally framed. The commanding officer will dispose of the case in one of the following manners:

- (a) Dismiss the charge if he is satisfied that the evidence produced before him is not sufficient to prove the charge.
- (b) Dispose of the case summarily provided he has the power to do so under the law.
- (c) Adjourn the case for the purpose of having the evidence recorded.
- (d) If the accused is below the rank of warrant officer, by ordering his trial by a summary court-martial, if trial by S.C.M. is competent and proper.
- (e) Refer the case to proper higher military authority for convening a district or general court-martial.

3. Court of Inquiry.—A Court of Inquiry is the machinery by which any unusual occurrence may be investigated. It may be assembled to assist an officer in command or superior commander

in arriving at a correct conclusion on any subject upon which it may be expedient for him to be thoroughly informed.

A Court of Inquiry is an assembly of officers (or one or more officers together with one or more junior or non-commissioned officers) directed to collect and record evidence and, if so required, to report with regard to any matter which may be offered to them. The court should normally consist of three members, the senior-most to act as president, and they may belong to any branch or department of the service according to the nature of investigation.

A Court of Inquiry can be assembled by the officer in command of any body of troops, whether belonging to one or more corps. The assembling authority should indicate the purpose for which the court has been assembled, by concise, full and specific instructions in the form of references, together with the time, date and place of meeting. It should also state whether a report is required or not.

Members of the court are not themselves sworn or affirmed, but when the court is a Court of Inquiry on recovered prisoners of war, the members make the prescribed declaration. Evidence must be taken on oath or affirmation where the Court of Inquiry relates to a prisoner of war or illegal absence, otherwise only when the convening officer so directs. A Court of Inquiry is not bound in any way by any rules of evidence and can put such questions as may be desirable to the witnesses for eliciting the truth. A civilian witness cannot be compelled to attend a Court of Inquiry although he may be requested to do so.

It is incumbent that the president and each member of a Court of Inquiry should use every means in their power to assist in arriving at a conclusion, by investigating the circumstances to a finality, not only by taking the evidence of and cross-examining the witnesses primarily warned to attend, but by obtaining the evidence from other witnesses also whose evidence may appear to be material as the inquiry develops, by visiting the scenes of occurrence and collecting any data or material which may appear relevant and may throw light on the investigation. Moreover, it is essential that the court should not only themselves sift thoroughly the evidence adduced in the case to arrive at a finding and recommendation, if called for, but should also set out the material obtained in evidence, including the exhibits—e.g., plans, reports, etc.—in such a manner and in such order that the higher authorities receiving the proceedings may be fully acquainted with all facts, and thus be in a position to come to a definite conclusion,

even though it may not have any previous knowledge of the occurrence and the circumstances connected therewith.

The proceedings should be forwarded by the president to the officer who assembled the Court of Inquiry. The proceedings are not admissible in evidence against a person subject to Military Law, nor can any evidence reflecting on the proceedings of the court be given against any such person except upon the trial of such person for wilfully giving false evidence before that court.

Whenever any Court of Inquiry affects the character or military reputation of a person subject to Military Law, full opportunity must be given to such person of being present throughout the inquiry and of making any statement or adducing any evidence and cross-examining any witness whose evidence in his opinion affects his character or military reputation. The responsibility of ensuring that this rule is complied with rests with the president of the court.

The court may be reassembled as often as the convening officer may direct for the purpose of further examination of witnesses. The court may also be directed to make such further report or reports as may be required.

An officer is disqualified from sitting on a court-martial if he was a member of the Court of Inquiry on the matter in which charges against the accused are framed.

Certain Courts of Inquiry are specifically provided for, and in some cases it is obligatory to hold a Court of Inquiry. These are given below.

- (a) **Illegal Absence.**—When any person subject to the Army Act has been absent without due authority from his duty for a period of thirty days, a Court of Inquiry as soon as possible is assembled, and after taking oath or affirmation, administered in the manner prescribed, inquire into the absence of the person, and the deficiency, if any, in the government property entrusted to his care.
- (b) **Prisoners of War.**—The Court of Inquiry is held on oath.
- (c) **Loss of Secret Documents.**—The court sits in camera. Every witness is warned that disclosure of any matter forming part of the proceedings of the Court may be treated as an offence against the Indian Official Secrets Act, 1923. Copy of proceedings is to be forwarded to the Chief of the General Staff.

(d) **Loss or Theft of Arms.**—A Court of Inquiry is assembled and the convening officer directs the court to record an opinion as to the circumstances under which the loss or theft occurred.

(c) **Injuries.**—A Court of Inquiry investigates the cause of injuries (other than those resulting from participation in games, sports or physical recreation) in all cases where where

- (i) the injury is fatal;
- (ii) in the commanding officer's opinion, doubt exists as to its cause;
- (iii) doubt exists whether in fact the person was on or off duty at the time of receiving injury;
- (iv) for any reason it is considered desirable to investigate thoroughly the cause of the injury;
- (v) the injury was caused through the fault of some other person.

The court does not give an opinion, but the injured person's commanding officer records his opinion on the evidence, stating whether the injured person was on duty and whether he was to blame.

(f) On animals destroyed.

(g) In connection with financial irregularities.

(h) In connection with motoring accidents and damage to mechanically propelled vehicles.

4. Summary of Evidence.—When the commanding officer on the basis of evidence available to him, either due to first-hand reports or Court of Inquiry proceedings, decides to adjourn the case for the purpose of having the evidence reduced to writing, he orders a Summary of Evidence to be recorded.

The accused is produced before the commanding officer, who reads out the charge against him (may place him under open or close arrest if necessary) and orders a Summary of Evidence to be recorded. The charges are drafted exactly as specimen given on pages 349 to 374 of "Manual of Indian Military Law" (1937).

(a) **Purposes for which a Summary of Evidence may be used.**

- (i) To assist the commanding and convening officer in determining whether the case shall go for trial by court-martial, and, if so, upon what charges.
- (ii) To enable the accused, if he is to be brought to

trial, to know what is alleged against him, and by whom, and to prepare his defence.

- (iii) To inform the prosecutor of the nature of evidence to be produced in the court.
 - (iv) To inform the president of the court the nature of the case and to check any inconsistency between the evidence given at the summary of evidence and the trial.
 - (v) To assist the court in deciding whether they should accept a plea of guilty if offered and, if accepted, in determining the proper sentence.
- (b) **Action before taking the Summary of Evidence (by Officer detailed to record it).**
- (i) Acquaint himself with all the circumstances of the case.
 - (ii) Ensure that he is not likely to be required as a witness.
 - (iii) Take steps to summon civilian witness, if any.
 - (iv) Note circumstances under which written statements may be obtained instead of calling the witnesses.
 - (v) Arrange order of calling witnesses, those producing formal documents first—others in chronological order.
- (c) An accused cannot claim to be represented at the Summary of Evidence in his defence. A full explanation of the charge, the purpose of the Summary of Evidence and his rights relating to it should be given to him.
- (d) **Evidence.**
- (i) *Oral.*—The evidence of each witness should be recorded in the narrative form—as far as possible in his own words. He must identify the accused if in a position to do so. While recording the statements, irrelevant and inadmissible portions should be rejected. The witnesses cannot be sworn or affirmed.
 - (ii) *Documentary.*—Each document must be produced in original (unless a certified true copy is made admissible by the rules of evidence) and identified by a witness, and the handwriting and signatures thereon are duly proved. All the peculiarities, identification marks and the condition of the exhibits of

material objects should be brought out and recorded in the evidence of the witnesses concerned.

At the conclusion of the evidence in chief of each witness, the accused should be given an opportunity to cross-examine him. The cross-examination should be recorded in the narrative form, but if the accused declines to cross-examine, "Cross-examination declined" should be inserted. The whole of the evidence (including cross-examination) has to be read over to the witness and signed by him after he acknowledges its correctness. When all the evidence for the prosecution has been taken, the accused, before he makes any statement, must be formally cautioned in the prescribed words. Any statement made by the accused is taken down, but he will not be cross-examined upon it.

At the end of the Summary of Evidence a certificate of compliance with the rules must be given, "I.A.A. Rule 15 (D) (E) (F) (G) have been complied with," and signed by the officer taking the Summary of Evidence. The place and date is also stated.

It is desirable that the officer recording the summary should furnish a written report to the commanding officer embodying any inside information which could not be brought out in investigation or evidence.

When the Summary of Evidence has been taken, the commanding officer must consider it and finally determine whether or not to remand the accused for trial by court-martial, or dispose of it summarily, or dismiss the charge. If the commanding officer decides to remand the accused for trial by court-martial, he must next consider by what class of court he should be tried. When applying for a general or district court-martial, the Summary of Evidence and charge should be submitted with the application.

Serious cases are reported to higher authority who, after scrutiny and on legal advice from the Judge Advocate-General (J.A.G.) Branch, decides on the type of court-martial to be assembled to try the accused.

Section 2. COURTS-MARTIAL

5. Duties of Convening Officer before convening a Court-Martial. On receipt of an application for trial, the formation commander has to decide upon the action to be taken. After examining all the evidence, he takes one of the following courses:

- (a) If in his opinion the evidence is inadequate and it is unlikely that further evidence will be available to support the charge and that the trial on the charges is not justified, he shall order the release of the accused.
- (b) Order or recommend the summary disposal of the offence or trial by S.C.M. if applicable.
- (c) Order/recommend the disposal of the case by administrative action e.g., stoppage of leave, penal deduction, transfer, discharge, dismissal, etc.
- (d) Order trial by a court-martial.

6. When trial by court-martial is necessary, the formation commander has to decide upon the suitable type of the court to deal with the case. While doing so, the following considerations are likely to arise:

- (a) Who is the accused? In the case of an officer or J.C.O., the trial can only be by a General Court-Martial (G.C.M.), on active service by Summary General Court-Martial (S.G.C.M.). In the case of others, depending on the merits of the case, by General Court-Martial or District Court-Martial or Summary Court-Martial.
- (b) What is the offence and what punishment should the court be in a position to inflict if the offence is proved?
- (c) Among the more general considerations are the prevalence of the particular type of offence, the state of discipline of the unit or formation and the character of the accused.

7. If it is considered that trial by Summary Court-Martial will meet the ends of justice in the case, the papers should be returned to the commanding officer with directions to this effect, together with instructions as to the charges and evidence.

8. When to consult the Deputy Judge Advocate-General (D.J.A.G.).—The formation commander in making his decision will have also to consider whether or not to consult the D.J.A.G. of the command under whom the formation is serving. In complicated cases, where difficulty is experienced with regard to in-

vestigation or to the taking of a Court of Inquiry, much subsequent delay will often be avoided if the D.J.A.G. is consulted at an early stage.

The advice of D.J.A.G. should invariably be sought before ordering trial in the following cases:

- (a) Where the trial is by G.C.M.
- (b) Cases of indecency.
- (c) Cases of fraud.
- (d) Cases of theft (except very simple cases).
- (e) All civil offences (except simple assaults).
- (f) Cases of doubt and difficulty (the doubt and difficulty should be stated in the letter to the D.J.A.G.).

The D.J.A.G., after carefully considering all the material placed before him, will send a report in duplicate to the formation commander on the application for trial, giving a draft charge sheet and advising on the sufficiency or otherwise of the evidence. He will also advise on the suitability of the type of court proposed.

9. Types of Court-Martials. - There are four kinds of Court-Martial under the Army Act (A.A., Sec. 108), namely:

- (a) General Court-Martial.
- (b) District Court-Martial.
- (c) Summary General Court-Martial.
- (d) Summary Court-Martial.

10. General Court-Martial (G.C.M.).

- (a) A G.C.M. may be convened by the Central Government or the Commander-in-Chief or by any officer empowered in this behalf by warrant of the Commander-in-Chief. The empowering document is known as the "A-2" warrant. Normally the G.O.C.-in-C. commands, area and division commanders, and all commanders of independent sub-area or independent brigades are empowered to convene G.Cs.M.

(b) Composition.

- (i) There must not be less than five officers.
- (ii) All members must have at least three full years' Army commissioned service.
- (iii) At least four members must be of a rank not less than a Captain.

- (iv) Members must not exclusively consist of officers of the corps or department to which the accused belongs, but should be of different corps or department.
- (v) No officer below the rank of a Captain can sit on the court-martial of a field officer, and no officer below the rank of the accused commissioned officer.
- (vi) A Judge Advocate must attend (A.A. 129).
- (c) Any person subject to the Army Act (A.A. 118) can be tried.
- (d) Powers of punishment:
 - (i) May award any sentence authorized by the Army Act.
 - (ii) Death sentence can only be passed with the concurrence of at least two-thirds of the members present (A.A. 132).

11. **District Court-Martial (D.C.M.).**

- (a) D.C.M. is convened by an officer having power to convene a G.C.M., or by any officer empowered on his behalf by warrant, known as "B-2" warrant.
- (b) **Composition.**
 - (i) The number of members should not be less than three officers.
 - (ii) All members must have at least two years' Army commissioned service.
 - (iii) A Judge-Advocate may attend and normally will be appointed in all difficult and complicated cases.
- (c) **Who can be Tried.**—Any person, other than an officer or a junior commissioned officer, who is subject to the jurisdiction of the Army Act (A.A. 119).
- (d) **Powers of Punishment.**—Any sentence authorized under the Army Act, other than a sentence of death, transportation or imprisonment for a term exceeding two years, but to a warrant officer a D.C.M. can only award the punishment specified in A.A. 119.

12. **Summary General Court-Martial.**

- (a) S.G.C.M. is convened by—
 - (i) an officer empowered in this behalf by an order of the Central Government or of the Commander-in-Chief;

- (ii) on active service the officer commanding the force in the field, or any officer empowered by him in this behalf;
- (iii) an officer commanding any detached portion of the regular Army on active service when, in his opinion, it is not practicable, with due regard to discipline and the exigencies of service, that an offence should be tried by General Court-Martial.

(b) Composition.

- (i) The minimum number of members must be three officers.
- (ii) Officers should have held commissions for not less than one year, preferably officers with three years' commissioned service.
- (iii) A Judge Advocate will normally be appointed in all difficult, complicated or serious cases.

(c) Who can be Tried.—All persons subject to the Army Act (A.A. 118).

(d) Powers of Punishment. Any sentence authorized under Army Act (A.A. 118).

13. Summary Court-Martial.

(a) S.C.M. is held by the officer commanding any corps, department or detachment of the regular Army.

(b) Composition. The court consists of the officer commanding only, but the proceedings must be attended throughout by two other officers or junior commissioned officers, who will not be sworn or affirmed.

(c) Who can be Tried.—All persons subject to Army Act except officers, junior commissioned officers and warrant officers.

(d) Offences Triable.—When there is no grave reason for immediate action and reference can without detriment to discipline be made to the officer empowered to convene a District Court-Martial or, on active service, a Summary General Court-Martial, for the trial of the alleged offender. An officer holding a Summary Court-Martial will not try without such reference any offence punishable under any of the Sections 34, 37 and 69 of the Army Act or any offence against the officer holding the court.

- (e) **Powers of Punishment.**—Any sentence authorized under the Army Act, other than a sentence of death, transportation, imprisonment for a term exceeding one year. An officer of the rank of Lieutenant-Colonel and upwards can award one year, and an officer below the rank of a Lieutenant-Colonel can only award three months.

14. Additional points applicable to all Courts-Martial under Army Act, other than Summary Courts-Martial.

- (a) Members must be officers.
- (b) Officer's commissioned service must be—
- (i) Actual service (this does not include any ante-date);
 - (ii) may be any commissioned service (including the Navy and the Air Force).
 - (iii) Service as junior commissioned officer does not count.
 - (iv) Service need not be continuous, although any period during which the officer was not actually serving does not count.
- (c) Officers who are disqualified (e.g., by being the officer commanding of the accused, having investigated the case or sat on the Court of Inquiry in the case) must not be appointed.
- (d) A court sitting with less than the minimum number of officers as specified above has no jurisdiction.
- (e) Every court should consist of odd number of members.
- (f) The senior member acts as the president. He is not detailed as such in the convening order.
- (g) Waiting members can be detailed to replace absentees or members successfully challenged.
- (h) A G.C.M. or D.C.M. or S.G.C.M. has no jurisdiction if each member has not held a commission for the required period, or if its composition differs in any respect from the convening order.

15. Judge Advocate-General Branch.—J.A.G.'s Branch is the judiciary in the Army and a part of A.G.'s Branch. In reality and appearance it is more or less free from all executive control of other branches or staff in the discharge of its judicial work.

16. The J.A.G. is the chief adviser to the Commander-in-Chief on all matters of military and martial law. He is also responsible to the Commander-in-Chief for the legal validity of all court-

martial trials wherever held. The J.A.G.'s departmental officers are all under the ultimate control of the Judge Advocate-General in so far as their departmental work is concerned, and although for the sake of administrative convenience some of these officers are decentralized—that is to say, attached to the several command headquarters—they nevertheless continue to function under the over-all control of the Judge Advocate-General.

The J.A.G.'s departmental officers are thus not part of the staff of a Command Headquarters; they are merely attached to such Headquarters with a view to obviating delay which would otherwise result if they were all concentrated at Army Headquarters. As already pointed out, these officers while so attached continue to remain responsible to their departmental head in all matters concerning the performance of their departmental duties and do not come under the control in that respect of the Army Commander or of any Command staff officer, but do so for discipline, etc. To illustrate the implications of this point and to emphasize basic difference between a normal staff officer at a Command Headquarters and J.A.G.'s departmental officer, it may be added here that the D.J.A.G. of a Command is entitled to and in some instances is required to forward a case with his own opinion to the J.A.G. for submission, if necessary, to the C.-in-C., should the G.O.C.-in-C. the Command decline to act on D.J.A.G.'s advice.

Section 3. MORALE

17. What is Morale?—Morale is briefly the will to fight and will be dependent on the following mental characteristics:

- (a) **Confidence in Himself.**—The individual must know what he has to do and how to do it; should be proficient in his profession and convinced of his superiority over the enemy.
- (b) **Confidence in His Comrades.**—Every action is the combined effort of a group where each individual plays his part to the best of his ability. The efforts of the individual must receive appropriate approbation from his comrades, and they should all be motivated by a common cause.
- (c) **Confidence in the Cause.**—To make any sacrifice, the individual wants to know the reasons and the rewards. He must be convinced that the effort is necessary for the defence of the country, and have faith in what his leaders preach.

(d) **Confidence in Leaders.**—Every individual and group must be convinced that the commanders whose orders they have to obey are proficient in their work, sincere in their actions, fair in their dealings, and that they will place the cause of the country before self.

(e) **Confidence in his Country.**—The knowledge that the people at home appreciate his efforts, that his family and children will be looked after and that his interests will be safeguarded are good boosters of morale.

18. These mental characteristics can be produced by the following means:

- (a) training;
- (b) good equipment;
- (c) good leadership;
- (d) experience in war;
- (e) good administration;
- (f) good welfare;
- (g) proper discipline;
- (h) judicious propaganda; and
- (i) proper rewards and awards.

19. **Honours and Awards.**—All ranks are eligible to the following awards and the monetary allowances fixed for each:

- (a) **Param Vir Chakra (P.V.C.).**—Equivalent to British V.C. All ranks except officers are entitled to Rs50 per month for the first award and Rs20 per month for each subsequent act of gallantry equivalent to the above.
- (b) **Maha Vir Chakra (M.V.C.).**—Second highest award for gallantry. Monetary awards are Rs30 per month and Rs10 per month for subsequent awards.
- (c) **Vir Chakra (Vr.C.).**—Gallantry award. Entitles the winner (except officer) to a monetary allowance of Rs20 per month and Rs8 per month for subsequent awards.

20. All gallantry awards are submitted by the Commanding Officer with necessary citations. For good morale it is essential that awards are suitable and granted expeditiously.

Section 4. WELFARE

21. A soldier does not keep on fighting always, and when not fighting he thinks of home, amenity and a bit of fun. To relieve him of the anxieties of home and to give him food for relaxation,

it is necessary to organize welfare activities, which can be divided into:

- (a) **Personal Welfare.**—The unit arranges games and other activities to keep the men amused. For this a unit is given an amenity allowance of Rs2 per head per annum.
- (b) **Unit Welfare.**—The unit/formation can organize welfare parties, amenities and dramatic parties according to resources available.

Amenity transport can be hired to take parties out for picnics and visits to various places within the restricted mileage allowed.

- (c) **Amenities.**—Amenities in kind are distributed to O.Rs. through units and are allotted by formations on a per head basis. These articles are contributed by philanthropic bodies and are good boosters of morale.

In certain areas “gift shops” are also opened from whence O.Rs. can purchase fancy articles at comparatively cheaper rates.

- (d) **Leave Centres.**—Where troops cannot go out of the theatre of operations, it is advisable to organize Leave Centres where men can be sent on casual leave for ten days or so at a time.

Leave Centres should not be used as transit camps and men must be allowed to relax. Special attention should be paid to diet, amusements and drinks. Orders regarding morning stand-to and other routine work should be cut down to the minimum.

- (e) **Welfare at Home.**—Every soldier has his problem at home. He must be encouraged to write letters, and the C.O. must keep watch on mail delivery and see that men receive mail regularly. In certain accessible areas welfare officers go round writing letters for men, and particularly so in hospitals. At home the family must receive allotments regularly and should not be harassed by local authorities.

To help the soldiers in the field and the ex-Service men, a Soldier, Sailor and Airmen's Board (S.S.A.B.) works under the Ministry of Defence. It has branches in all provinces, districts and tehsils of the country, and keeps personal touch with the “abandoned” families and helps in solving their difficulties.

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